

Set Items Description

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Ref	Items	Index-term
E1	53	AU=FI SCHER, G. W
E2	24	AU=FI SCHER, G
E3	0	*AU=FI SCHER, G?
E4	3	AU=FI SCHER, GA
E5	11	AU=FI SCHER, GABOR
E6	5	AU=FI SCHER, GABOR M
E7	4	AU=FI SCHER, GABRI EL
E8	10	AU=FI SCHER, GABRI ELA
E9	1	AU=FI SCHER, GABRI ELA A
E10	3	AU=FI SCHER, GABRI ELA A.
E11	57	AU=FI SCHER, GABRI ELE
E12	17	AU=FI SCHER, GABRI ELLA

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Ref	Items	Index-term
E13	2	AU=FI SCHER, GABY
E14	136	AU=FI SCHER, GAD
E15	5	AU=FI SCHER, GARY
E16	3	AU=FI SCHER, GARY J.
E17	4	AU=FI SCHER, GARY JOHN
E18	1	AU=FI SCHER, GARY R
E19	2	AU=FI SCHER, GARY R.
E20	1	AU=FI SCHER, GARY S
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E23	16	AU=FI SCHER, GARY W
E24	1	AU=FI SCHER, GARY WALTER

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? e au=fischer, ge?

Ref	Items	Index-term
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E7	1	AU=FI SCHER, GEOFF
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E10	22	AU=FI SCHER, GEORGE
E11	5	AU=FI SCHER, GEORGE A
E12	17	AU=FI SCHER, GEORGE A.

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Ref	Items	Index-term
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E15	1	AU=FI SCHER, GEORGE H.
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E17	7	AU=FI SCHER, GEORGE J.
E18	2	AU=FI SCHER, GEORGE L

10601171monoclonal.txt

Ref	Items	Index-term
E19	14	AU=FI SCHER, GEORGE L.
E20	2	AU=FI SCHER, GEORGE LUDWIG
E21	1	AU=FI SCHER, GEORGE T. II
E22	1	AU=FI SCHER, GEORGE TEHAN
E23	2	AU=FI SCHER, GEORGE W
E24	1	AU=FI SCHER, GEORGE W

Enter P or PAGE for more

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Ref	Items	Index-term
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E26	61	AU=FI SCHER, GERALD
E27	1	AU=FI SCHER, GERALD CHARLES
E28	2	AU=FI SCHER, GERALD R
E29	7	AU=FI SCHER, GERALD W
E30	25	AU=FI SCHER, GERALD W
E31	3	AU=FI SCHER, GERALD WALTER
E32	2	AU=FI SCHER, GERARD
E33	496	AU=FI SCHER, GERD
E34	2	AU=FI SCHER, GERD M
E35	8	AU=FI SCHER, GERD M
E36	1	AU=FI SCHER, GERD.

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61	AU=FI SCHER, GERALD
1	AU=FI SCHER, GERALD CHARLES
2	AU=FI SCHER, GERALD R
7	AU=FI SCHER, GERALD W
25	AU=FI SCHER, GERALD W
3	AU=FI SCHER, GERALD WALTER
99	E26- E31

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>>>Duplicate detection is not supported for File 393.

>>>Duplicate detection is not supported for File 391.

>>>Records from unsupported files will be retained in the RD set.

S2 88 RD (unique items)

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Processed 10 of 56 files ...  
 Processed 20 of 56 files ...  
 Processed 30 of 56 files ...  
 Processed 40 of 56 files ...  
 Processed 50 of 56 files ...  
 Completed processing all files

88 S2

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S3 0 S2 AND ?TECHOI C?

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PLEASE ENTER A COMMAND OR BE LOGGED OFF IN 5 MINUTES

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Ref	Items	Index-term
E1	53	AU=FI SCHER, G. W
E2	24	AU=FI SCHER, G.
E3	0	*AU=FI SCHER, G?
E4	3	AU=FI SCHER, GA
E5	11	AU=FI SCHER, GABOR
E6	5	AU=FI SCHER, GABOR M
E7	4	AU=FI SCHER, GABRI EL

E8	10	AU=FI SCHER,	GABRI ELA
E9	1	AU=FI SCHER,	GABRI ELA A
E10	3	AU=FI SCHER,	GABRI ELA A.
E11	57	AU=FI SCHER,	GABRI ELE
E12	17	AU=FI SCHER,	GABRI ELLA

Enter P or PAGE for more  
 ? e au=fischer, gerald

Ref	Items	Index-term
E1	1	AU=FI SCHER, GEORGE W
E2	6	AU=FI SCHER, GEORGES
E3	61	*AU=FI SCHER, GERALD
E4	1	AU=FI SCHER, GERALD CHARLES
E5	2	AU=FI SCHER, GERALD R
E6	7	AU=FI SCHER, GERALD W
E7	25	AU=FI SCHER, GERALD W
E8	3	AU=FI SCHER, GERALD WALTER
E9	2	AU=FI SCHER, GERARD
E10	496	AU=FI SCHER, GERD
E11	2	AU=FI SCHER, GERD M
E12	8	AU=FI SCHER, GERD M

Enter P or PAGE for more  
 ? s e3-e8

61	AU=FI SCHER,	GERALD
1	AU=FI SCHER,	GERALD CHARLES
2	AU=FI SCHER,	GERALD R
7	AU=FI SCHER,	GERALD W
25	AU=FI SCHER,	GERALD W
3	AU=FI SCHER,	GERALD WALTER

S4 99 E3-E8

? s s4 and (lipotechoic or techoic)

99	S4
196	LI POTECHOIC
346	TECHOIC

S5 0 S4 AND (LI POTECHOIC OR TECHOIC)

? s s4 and (lipotechoic or techoic)

99	S4
14841	LI POTECHOIC
13613	TEI CHOIC

S6 8 S4 AND (LI POTECHOIC OR TEI CHOIC)

? rd

>>>Duplicate detection is not supported for File 393.

>>>Duplicate detection is not supported for File 391.

>>>Records from unsupported files will be retained in the RD set.

S7 6 RD (unique items)

? t s7/3,k/1-6

>>>KW C option is not available in file(s): 399

7/3,K/1 (Item 1 from file: 24)  
 DI ALCO R File 24: CSA Life Sciences Abstracts  
 (c) 2010 CSA. All rts. reserv.

0003697420 I P ACCESSION NO: 9200024  
 Safety and pharmacokinetics of a chimerized anti-lipoteichoic acid  
 monoclonal antibody in healthy adults

Weisman, Leonard E; Fischer, Gerald W; Thackray, Helen M; Johnson,  
 Karen E; Schuman, Richard F; Mandy, George T; Stratton, Beth E; Adams,  
 Page 3

10601171monoclonal.txt

Karen M. Kramer, William G. Mond, James J.  
Department of Pediatrics, Baylor College of Medicine, Houston, TX, United  
States, [mailto:nlinfo-f@elsevier.nl], [URL: http://www.elsevier.nl/]

International Immunopharmacology, v 9, n 5, p 639-644, May 2009  
PUBLICATION DATE: 2009

PUBLISHER: Elsevier Science, P.O. Box 211 Amsterdam 1000 AE Netherlands,  
[mailto:nlinfo-f@elsevier.nl], [URL: http://www.elsevier.nl/]

DOCUMENT TYPE: Journal Article  
RECORD TYPE: Abstract  
LANGUAGE: English  
SUMMARY LANGUAGE: English  
ISSN: 1567-5769  
FILE SEGMENT: Immunology Abstracts

Safety and pharmacokinetics of a chimerized anti-lipoteichoic acid  
monoclonal antibody in healthy adults

Weisman, Leonard E; Fischer, Gerald W; Thackray, Helen M; Johnson,  
Karen E; Schuman, Richard F; Mandy, George T; Stratton...

ABSTRACT:

A chimerized (murine/human) monoclonal antibody (pabiximab) against  
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coagulase-negative staphylococci (CONS) and Staphylococcus aureus...

DESCRIPTORS: Animal models; Bacteremia; Clinical isolates; Clinical  
trials; Data processing; Drugs; Immunoglobulin G; Infection;  
Intravenous administration; Lipoteichoic acid; Monoclonal  
antibodies; Pharmacokinetics; Risk groups; Statistical analysis;  
Staphylococcus aureus; Staphylococcus epidermidis

7/3, K/2 (Item 2 from file: 24)  
DIALOG File 24: CSA Life Sciences Abstracts  
(c) 2010 CSA. All rights reserved.

0002808824 IP ACCESSION NO: 6495019  
Opsonic and protective monoclonal and chimeric antibodies specific for  
lipoteichoic acid of gram positive bacteria

Fischer, Gerald W; Schuman, Richard F; Wong, Hing; Stinson,  
Jeffrey R

, September 6, 2005  
PUBLICATION DATE: 2005

DOCUMENT TYPE: Patent  
RECORD TYPE: Abstract  
LANGUAGE: English  
SUMMARY LANGUAGE: English  
FILE SEGMENT: Medical & Pharmaceutical Biotechnology Abstracts

Opsonic and protective monoclonal and chimeric antibodies specific for  
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Fischer, Gerald W; Schuman, Richard F; Wong, Hing; Stinson,  
Jeffrey R

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The present invention encompasses monoclonal and chimeric antibodies that bind to lipoteichoic acid of Gram positive bacteria. The antibodies also bind to whole bacteria and enhance phagocytosis...

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DESCRIPTORS: Gram positive bacteria; Epitopes; Lipoteichoic acid; Monoclonal antibodies; Infection; Vaccines; Phagocytosis; Patients

7/3, K/3 (Item 1 from file: 399)

DIALCOG(R) File 399: CA SEARCH(R)

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151099228 CA: 151(5)99228b JOURNAL

Phase 1/2 double-blind, placebo-controlled, dose escalation, safety, and pharmacokinetic study of pagibaximab (BSYX-A110), an antistaphylococcal monoclonal antibody for the prevention of staphylococcal bloodstream infections, in very-low-birth-weight neonates

AUTHOR(S): Weisman, Leonard E.; Thackray, Helen M.; Garcia-Prats, Joseph A.; Nesin, Mirjana; Schneider, Joseph H.; Fretz, Jennifer; Kokai-Kun, John F.; Mond, James J.; Kramer, William G.; Fischer, Gerald W.

LOCATION: Department of Pediatrics, Baylor College of Medicine, Houston, TX, USA

JOURNAL: Antimicrob. Agents Chemother. (Antimicrobial Agents and Chemotherapy) DATE: 2009 VOLUME: 53 NUMBER: 7 PAGES: 2879-2886 CODEN: AMCOQ ISSN: 0066-4804 LANGUAGE: English PUBLISHER: American Society for Microbiology

7/3, K/4 (Item 2 from file: 399)

DIALCOG(R) File 399: CA SEARCH(R)

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144348884 CA: 144(19)348884r PATENT

Effective immunogenic compositions comprising combinations of staphylococcal antigens and capsular polysaccharides

INVENTOR(AUTHOR): Castano, Cindy; Fischer, Gerald Walter; Foster, Simon James; Kokai-Kun, John Fitzgerald; Lecrenier, Nicolas Pierre Fernand; Lees, Andrew; Mond, James Jacob; Neyt, Cecile Anne; Poolman, Jan

LOCATION: Belg.

ASSIGNEE: GlaxoSmithKline Biologicals S.A.; The University of Sheffield; Biosynexus Incorporated

PATENT: PCT International; WO 200632475 A2 DATE: 20060330

APPLICANT: WO 2005EP10199 (20050920) \*GB 200421079 (20040922) \*GB 200421078 (20040922) \*GB 200421081 (20040922) \*GB 200421082 (20040922) \*GB 20053143 (20050215)

PAGES: 136 pp. CODEN: PIXD2 LANGUAGE: English

PATENT CLASSIFICATIONS:

CLASS: A61K 000/A

DESIGNATED COUNTRIES: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BW; BY; BZ; CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; EG; ES; FI; GB; GD; GE; GH; GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KM; KP; KR; KZ; LC; LK; LR; LS; LT; LU; LV; LY; MA; MD; MG; MK; MN; MW; MX; MY; NG; NI; NO; NZ; OM; PG; PH; PL; PT; RO; RU; SC; SD; SE; SG; SK; SL; SM; SY; TH; TM; TR; TT; TZ; UA; UG; US; UZ; VC; VN; YU; ZA; ZM

DESIGNATED REGIONAL: AT; BE; BG; CH

10601171monoclonal.txt  
 : CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HU; IE; IS; IT; LT; LU; LV; MC;  
 NL; PL; PT; RO; SE; SI; SK; TR; BF; BJ; CF; CG; CI; CM; GA; GN; GG; GW; ML;  
 MR; NE; NI; TD; TG; BW; GH; GM; KE; LS; MW; MZ; NA; SD; SL; SZ; TZ; UG; ZM;  
 ZW AM AZ; BY; KG; KZ; MD; RU; TJ; TM

7/3, K/5 (Item 3 from file: 399)

DI ALCO (R) File 399: CA SEARCH (R)

(c) 2010 American Chemical Society. All rts. reserv.

140058441 CA: 140(5) 58441v PATENT  
 Osonic monoclonal and chimeric antibodies specific to lipoteichoic acid  
 of Gram positive bacteria for diagnosis and treatment of infection  
 INVENTOR(AUTHOR): Stinson, Jeffrey R.; Schuman, Richard F.; Mond, James  
 J.; Lees, Andrew; Fischer, Gerald Walter  
 LOCATION: USA  
 PATENT: U.S. Pat. Appl. Publ.; US 20030235578 A1 DATE: 20031225  
 APPLICATI ON: US 323927 (20021220) \*US 97055 (19980615) \*US PV343503  
 (20011221)  
 PAGES: 42 pp., Cont.-in-part of U.S. 6,610,293. CODEN: USXXCO  
 LANGUAGE: English  
 PATENT CLASSIFICATIONS:  
 CLASS: 424130100; A61K-039/395A; C07K-016/18B

7/3, K/6 (Item 4 from file: 399)

DI ALCO (R) File 399: CA SEARCH (R)

(c) 2010 American Chemical Society. All rts. reserv.

139116277 CA: 139(8) 116277p PATENT  
 Osonic monoclonal and chimeric antibodies specific for lipoteichoic acid  
 of Gram positive bacteria  
 INVENTOR(AUTHOR): Stinson, Jeffrey R.; Schuman, Richard F.; Mond, James  
 J.; Lees, Andrew; Fischer, Gerald Walter  
 LOCATION: USA  
 ASSIGNEE: Biosynex Incorporated  
 PATENT: PCT International; WO 200359260 A2 DATE: 20030724  
 APPLICATI ON: WO 2002US41033 (20021223) \*US PV343503 (20011221)  
 PAGES: 99 pp. CODEN: PIXXD2 LANGUAGE: English  
 PATENT CLASSIFICATIONS:  
 CLASS: A61K-000/A  
 DESIGNATED COUNTRIES: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; BZ;  
 CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; ES; FI; GB; GD; GE; GH;  
 GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU;  
 LV; MA; MD; MG; MK; MN; MW; MX; MZ; NO; NZ; OM; PH; PL; PT; RO; RU; SC; SD;  
 SE; SG; SK; SL; TJ; TM; TN; TR; TT; TZ; UA; UG; US; UZ; VC; VN; YU; ZA; ZM;  
 ZW AM AZ; BY; KG; KZ; MD; RU; TJ; TM DESIGNATED REGIONAL: GH; GM; KE; LS;  
 ; MW; MZ; SD; SL; SZ; TZ; UG; ZM ZW AT; BE; BG; CH; CY; CZ; DE; DK; EE;  
 ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE; SI; SK; TR; BF; BJ; CF; CG;  
 CI; CM; GA; GN; GG; GW; ML; MR; NE; SN; TD; TG  
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Ref	Items	Index-term
E1	5	AU=WONG, HIN-YONG
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E3	43	*AU=WONG, HING
E4	44	AU=WONG, HING C
E5	69	AU=WONG, HING C
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E10	1	AU=WONG, HING KWOK

E11 7 AU=WONG, HING LOK  
E12 2 AU=WONG, HING NAM IVY

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? s e3-e12

43 AU=WONG, HING  
44 AU=WONG, HING C  
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1 AU=WONG, HING KWOK  
7 AU=WONG, HING LOK  
2 AU=WONG, HING NAM IVY

S8 184 E3-E12

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184 S8  
14841 LI POTEICHOIC  
13613 TEICHOIC

S9 3 S8 AND (LI POTEICHOIC OR TEICHOIC)

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>>>Duplicate detection is not supported for File 393.

>>>Duplicate detection is not supported for File 391.

>>>Records from unsupported files will be retained in the RD set.  
S10 2 RD (unique items)

? t s10/3,k/1-2

>>>KW C option is not available in file(s): 399

10/3,K/1 (Item 1 from file: 24)  
DIALOG(R) File 24: CSA Life Sciences Abstracts  
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0002808824 IP ACCESSION NO: 6495019  
Opsonic and protective monoclonal and chimeric antibodies specific for  
lipoteichoic acid of gram positive bacteria

Fischer, Gerald W Schuman, Richard F; Wong, Hing; Stinson,  
Jeffrey R

, September 6, 2005  
PUBLICATION DATE: 2005

DOCUMENT TYPE: Patent  
RECORD TYPE: Abstract  
LANGUAGE: English  
SUMMARY LANGUAGE: English  
FILE SEGMENT: Medical & Pharmaceutical Biotechnology Abstracts

Opsonic and protective monoclonal and chimeric antibodies specific for  
lipoteichoic acid of gram positive bacteria

Fischer, Gerald W Schuman, Richard F; Wong, Hing; Stinson,  
Jeffrey R

#### ABSTRACT:

The present invention encompasses monoclonal and chimeric antibodies that  
bind to lipoteichoic acid of Gram positive bacteria. The antibodies  
also bind to whole bacteria and enhance phagocytosis...

...unknown means to diagnose, prevent and/or treat infections caused by gram positive bacteria bearing lipoteichoic acid. This invention also encompasses a peptide mimic of the lipoteichoic acid epitope binding site defined by the monoclonal antibody. This epitope or epitope peptide mimic identifies other antibodies that may bind to the lipoteichoic acid epitope. Moreover, the epitope or epitope peptide mimic provides a valuable substrate for the...

DESCRIPTORS: Gram positive bacteria; Epitopes; Lipoteichoic acid;  
Monoclonal antibodies; Infection; Vaccines; Phagocytosis; Patents

10/3, K/2 (Item 1 from file: 399)

DI ALCOG R) File 399: CA SEARCH(R)

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139306536 CA: 139(20)306536v PATENT

Production of humanized antibodies by optimizing individual framework regions for diagnostic and therapeutic uses

INVENTOR(AUTHOR): Wong, Hing C.; Stinson, Jeffrey R.; Mosquera, Luis A.

LOCATION: USA

ASSIGNEE: Sunol Molecular Corporation

PATENT: U.S. Pat. Appl. Publ.: US 20030190705 A1 DATE: 20031009

APPLICATION: US 230880 (20020829) \*US PV343306 (20011029) \*US 990586 (20011121)

PAGES: 95 pp., Cont. -in-part of U.S. Pat. Appl. 2003 109,680. CODEN:

USXXCO LANGUAGE: English

PATENT CLASSIFICATION:

CLASS: 435069100; C12P-021/02A; C12N-005/06B; C07K-016/44B;

C07H-021/04B

? e au=schuman, richard

Ref	Items	Index-term
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E2	2	AU=SCHUMAN, RF
E3	7	*AU=SCHUMAN, RI CHARD
E4	1	AU=SCHUMAN, RI CHARD C.
E5	5	AU=SCHUMAN, RI CHARD F.
E6	16	AU=SCHUMAN, RI CHARD F.
E7	1	AU=SCHUMAN, RI CHARD FARREL
E8	7	AU=SCHUMAN, RI CHARD J.
E9	1	AU=SCHUMAN, RI CHARD M.
E10	3	AU=SCHUMAN, RI CK
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E12	1	AU=SCHUMAN, ROBERT A.

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1	AU=SCHUMAN, RI CHARD C.
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16	AU=SCHUMAN, RI CHARD F.
1	AU=SCHUMAN, RI CHARD FARREL
7	AU=SCHUMAN, RI CHARD J.
1	AU=SCHUMAN, RI CHARD M.
S11	38 E3-E9

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13613	TEI CHOI C



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>>>Duplicate detection is not supported for File 393.

>>>Duplicate detection is not supported for File 391.

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S13 4 RD (unique items)

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>>>KWC option is not available in file(s): 399

13/3, K/1 (Item 1 from file: 24)  
DIALOG(R) File 24: CSA Life Sciences Abstracts  
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0003697420 I P ACCESSION NO: 9200024

Safety and pharmacokinetics of a chimerized anti-lipoteichoic acid  
monoclonal antibody in healthy adults

Weisman, Leonard E; Fischer, Gerald W Thackray, Helen M Johnson, Karen  
E; Schuman, Richard F; Mandy, George T; Stratton, Beth E; Adams,  
Karen M; Kramer, William G Mond, James J  
Department of Pediatrics, Baylor College of Medicine, Houston, TX, United  
States, [mailto:lweisman@bcm.edu]

International Immunopharmacology, v 9, n 5, p 639-644, May 2009  
PUBLICATION DATE: 2009

PUBLISHER: Elsevier Science, P.O. Box 211 Amsterdam 1000 AE Netherlands,  
[mailto:nlinfo-f@elsevier.nl], [URL: http://www.elsevier.nl/]

DOCUMENT TYPE: Journal Article

RECORD TYPE: Abstract

LANGUAGE: English

SUMMARY LANGUAGE: English

ISSN: 1567-5769

FILE SEGMENT: Immunology Abstracts

Safety and pharmacokinetics of a chimerized anti-lipoteichoic acid  
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Weisman, Leonard E; Fischer, Gerald W Thackray, Helen M Johnson, Karen  
E; Schuman, Richard F; Mandy, George T; Stratton, Beth E; Adams,  
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A chimerized (murine/human) monoclonal antibody (pagibaximab) against  
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DESCRIPTORS: Animal models; Bacteremia; Clinical isolates; Clinical  
trials; Data processing; Drugs; Immunoglobulin G Infection;  
Intravenous administration; Lipoteichoic acid; Monoclonal  
antibodies; Pharmacokinetics; Risk groups; Statistical analysis;  
Staphylococcus aureus; Staphylococcus epidermidis

13/3, K/2 (Item 2 from file: 24)  
DIALOG(R) File 24: CSA Life Sciences Abstracts  
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10601171monoclonal.txt  
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Jeffrey R

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valuable substrate for the...

DESCRIPTORS: Gram positive bacteria; Epitopes; Lipoteichoic acid;  
Monoclonal antibodies; Infection; Vaccines; Phagocytosis; Patents

13/3, K/3 (Item 1 from file: 399)  
DIALOG(R) File 399: CA SEARCH(R)  
(c) 2010 American Chemical Society. All rts. reserv.

140058441 CA: 140(5) 58441v PATENT  
Oposonic monoclonal and chimeric antibodies specific to lipoteichoic acid  
of Gram positive bacteria for diagnosis and treatment of infection  
INVENTOR(AUTHOR): Stinson, Jeffrey R; Schuman, Richard F.; Mond, James  
J.; Lees, Andrew; Fischer, Gerald Walter  
LOCATION: USA  
PATENT: U.S. Pat. Appl. Publ.; US 20030235578 A1 DATE: 20031225  
APPLICATI ON: US 323927 (20021220) \*US 97055 (19980615) \*US PV343503  
(20011221)  
PAGES: 42 pp., Cont.-in-part of U.S. 6,610,293. CODEN: USXXCO  
LANGUAGE: English  
PATENT CLASSIFICATIONS:  
CLASS: 424130100; A61K-039/395A; 007K-016/18B

13/3, K/4 (Item 2 from file: 399)  
DIALOG(R) File 399: CA SEARCH(R)  
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10601171.mnclonal.txt  
 139116277 CA: 139(8)116277p PATENT  
 Copsonic monoclonal and chimeric antibodies specific for lipoteichoic acid  
 of Gram positive bacteria  
 INVENTOR(AUTHOR): Stinson, Jeffrey R.; Schuman, Richard F.; Mond, James  
 J.; Lees, Andrew, Fischer, Gerald Walter  
 LOCATION: USA  
 ASSIGNEE: Biosynex Incorporated  
 PATENT: PCT International ; WO 200359260 A2 DATE: 20030724  
 APPLICATION: WO 2002US41033 (20021223) \*US PV343503 (20011221)  
 PAGES: 99 pp. CODEN: PIXXD2 LANGUAGE: English  
 PATENT CLASSIFICATION:  
 CLASS: A61K 000/ A  
 DESIGNATED COUNTRIES: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; BZ;  
 CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; ES; FI; GB; GD; GE; GH;  
 GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU;  
 LV; MA; MD; MG; MK; MN; MW; MX; MZ; NO; NZ; OM; PH; PL; PT; RO; RU; SC; SD;  
 SE; SG; SK; SL; TJ; TM; TN; TR; TT; TZ; UA; UG; US; UZ; VC; VN; YU; ZA; ZM;  
 ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM DESIGNATED REGIONAL: GH; GM; KE; LS;  
 ; MW; MZ; SD; SL; SZ; TZ; UG; ZM; ZW; AT; BE; BG; CH; CY; CZ; DE; DK; EE;  
 ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE; SI; SK; TR; BF; BJ; CF; CG;  
 CI; CM; GA; GN; GQ; GW; ML; MR; NE; SN; TD; TG  
 ? e au=stinson, jeffrey

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E2	4	AU-STINSON, JE
E3	12	*AU-STINSON, JEFFREY
E4	4	AU-STINSON, JEFFREY A
E5	8	AU-STINSON, JEFFREY A
E6	2	AU-STINSON, JEFFREY ALAN
E7	1	AU-STINSON, JEFFREY L
E8	3	AU-STINSON, JEFFREY L
E9	7	AU-STINSON, JEFFREY R
E10	10	AU-STINSON, JEFFREY R
E11	1	AU-STINSON, JEFFREY RICHARD
E12	1	AU-STINSON, JEFFREY S

Enter P or PAGE for more

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 ? s e1-12  
 >>>Term "12" in invalid position  
 ? s e1-e12

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	4	AU-STINSON, JE
	12	AU-STINSON, JEFFREY
	4	AU-STINSON, JEFFREY A
	8	AU-STINSON, JEFFREY A
	2	AU-STINSON, JEFFREY ALAN
	1	AU-STINSON, JEFFREY L
	3	AU-STINSON, JEFFREY L
	7	AU-STINSON, JEFFREY R
	10	AU-STINSON, JEFFREY R
	1	AU-STINSON, JEFFREY RICHARD
	1	AU-STINSON, JEFFREY S
S14	54	E1-E12

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 54 S14  
 14841 LI POTEICHOIC  
 13613 TEICHOIC  
 S15 5 S14 AND (LI POTEICHOIC OR TEICHOIC)  
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10601171monoclonal.txt  
>>>Duplicate detection is not supported for File 393.

>>>Duplicate detection is not supported for File 391.

>>>Records from unsupported files will be retained in the RD set.

S16 4 RD (unique items)

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>>>KWC option is not available in file(s): 399

16/3,K/1 (Item 1 from file: 24)  
DI ALCO (R) File 24: CSA Life Sciences Abstracts  
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0002808824 IP ACCESSION NO: 6495019

Opsonic and protective monoclonal and chimeric antibodies specific for  
lipoteichoic acid of gram positive bacteria

Fischer, Gerald W Schuman, Richard F; Wong, Hing; Stinson, Jeffrey  
R

, September 6, 2005  
PUBLICATION DATE: 2005

DOCUMENT TYPE: Patent

RECORD TYPE: Abstract

LANGUAGE: English

SUMMARY LANGUAGE: English

FILE SEGMENT: Medical & Pharmaceutical Biotechnology Abstracts

Opsonic and protective monoclonal and chimeric antibodies specific for  
lipoteichoic acid of gram positive bacteria

Fischer, Gerald W Schuman, Richard F; Wong, Hing; Stinson, Jeffrey  
R

#### ABSTRACT:

The present invention encompasses monoclonal and chimeric antibodies that  
bind to lipoteichoic acid of Gram positive bacteria. The antibodies  
also bind to whole bacteria and enhance phagocytosis...

...unknown means to diagnose, prevent and/or treat infections caused by  
gram positive bacteria bearing lipoteichoic acid. This invention also  
encompasses a peptide mimc of the lipoteichoic acid epitope binding  
site defined by the monoclonal antibody. This epitope or epitope peptide  
mimc identifies other antibodies that may bind to the lipoteichoic  
acid epitope. Moreover, the epitope or epitope peptide mimc provides a  
valuable substrate for the...

DESCRIPTORS: Gram-positive bacteria; Epitopes; Lipoteichoic acid;  
Monoclonal antibodies; Infection; Vaccines; Phagocytosis; Patents

16/3,K/2 (Item 1 from file: 399)  
DI ALCO (R) File 399: CA SEARCH (R)  
(c) 2010 American Chemical Society. All rts. reserv.

140058441 CA: 140(5) 58441v PATENT  
Opsonic monoclonal and chimeric antibodies specific to lipoteichoic acid  
of Gram positive bacteria for diagnosis and treatment of infection  
INVENTOR(AUTHOR): Stinson, Jeffrey R.; Schuman, Richard F.; Mond, James  
J.; Lees, Andrew; Fischer, Gerald Walter  
LOCATION: USA

10601171monoclonal.txt

PATENT: U.S. Pat. Appl. Publ.: US 20030235578 A1 DATE: 20031225  
APPLI CATION: US 323927 (20021220) \*US 97055 (19980615) \*US PV343503  
(20011221)  
PAGES: 42 pp., Cont.-in-part of U.S. 6,610,293. CODEN: USXXCO  
LANGUAGE: English  
PATENT CLASSIFICATIONS:  
CLASS: 424130100; A61K-039/395A; C07K-016/18B

16/3, K/3 (Item 2 from file: 399)  
DIALOG R File 399: CA SEARCH R  
(c) 2010 American Chemical Society. All rts. reserv.

139306536 CA: 139(20)306536v PATENT  
Production of humanized antibodies by optimizing individual framework  
regions for diagnostic and therapeutic uses  
INVENTOR(AUTHOR): Vong, Hing C.; Stinson, Jeffrey R.; Mbsquera, Luis A.  
LOCATION: USA  
ASSIGNEE: Sunol Molecular Corporation  
PATENT: U.S. Pat. Appl. Publ.: US 20030190705 A1 DATE: 20031009  
APPLI CATION: US 230880 (20020829) \*US PV343306 (20011029) \*US 990586  
(20011121)  
PAGES: 95 pp., Cont.-in-part of U.S. Pat. Appl. 2003 109,680. CODEN:  
USXXCO LANGUAGE: English  
PATENT CLASSIFICATIONS:  
CLASS: 435069100; C12P-021/02A; C12N-005/06B; C07K-016/44B;  
C07H-021/04B

16/3, K/4 (Item 3 from file: 399)  
DIALOG R File 399: CA SEARCH R  
(c) 2010 American Chemical Society. All rts. reserv.

139116277 CA: 139(8)116277p PATENT  
Oposonic monoclonal and chimeric antibodies specific for lipoteichoic acid  
of Gram positive bacteria  
INVENTOR(AUTHOR): Stinson, Jeffrey R.; Schuman, Richard F.; Mond, James  
J.; Lees, Andrew; Fischer, Gerald Walter  
LOCATION: USA  
ASSIGNEE: Biosynex Incorporated  
PATENT: PCT International; WO 200359260 A2 DATE: 20030724  
APPLI CATION: WO 2002US41033 (20021223) \*US PV343503 (20011221)  
PAGES: 99 pp. CODEN: PIXXD2 LANGUAGE: English  
PATENT CLASSIFICATIONS:  
CLASS: A61K-000/A  
DESIGNATED COUNTRIES: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; BZ;  
CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; ES; FI; GB; GD; GE; GH;  
GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU;  
LV; MA; MD; MG; MK; MN; MW; MX; MZ; NO; NZ; OM; PH; PL; PT; RO; RU; SC; SD;  
SE; SG; SK; SL; TJ; TM; TN; TR; TT; TZ; UA; UG; US; UZ; VC; VN; YU; ZA; ZM;  
ZW AM; AZ; BY; KG; KZ; MD; RU; TJ; TM DESIGNATED REGIONAL: GH; GM; KE; LS;  
; MW; MZ; SD; SL; SZ; TZ; UG; ZM; ZW AT; BE; BG; CH; CY; CZ; DE; DK; EE;  
ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE; SI; SK; TR; BF; BJ; CF; CG;  
CI; CM; GA; GN; GQ; GW; ML; MR; NE; NI; TD; TG  
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10601171monoclonal.txt  
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 S8 184 E3-E12  
 S9 3 S8 AND (LI POTEI CHOI C OR TEI CHOI C)  
 S10 2 RD (unique items)  
 S11 38 E3-E9  
 S12 6 S11 AND (LI POTEI CHOI C OR TEI CHOI C)  
 S13 4 RD (unique items)  
 S14 54 E1-E12  
 S15 5 S14 AND (LI POTEI CHOI C OR TEI CHOI C)  
 S16 4 RD (unique items)  
 ? t s16/3, k/1-4  
 >>>KW C option is not available in file(s): 399

16/3, K/1 (Item 1 from file: 24)  
 DI ALCG (R) File 24: CSA Life Sciences Abstracts  
 (c) 2010 CSA. All rts. reserv.

0002808824 IP ACCESSI ON NO: 6495019  
 Oposonic and protective monoclonal and chimeric antibodies specific for  
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Fischer, Gerald W Schuman, Richard F; Wong, Hing; Stinson, Jeffrey  
 R

, September 6, 2005  
 PUBLI CATION DATE: 2005

DOCUMENT TYPE: Patent  
 RECORD TYPE: Abstract  
 LANGUAGE: English  
 SUMMARY LANGUAGE: English  
 FILE SEGMENT: Medical & Pharmaceutical Biotechnology Abstracts

Oposonic and protective monoclonal and chimeric antibodies specific for  
 lipoteichoic acid of gram positive bacteria

Fischer, Gerald W Schuman, Richard F; Wong, Hing; Stinson, Jeffrey  
 R

#### ABSTRACT:

The present invention encompasses monoclonal and chimeric antibodies that  
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 also bind to whole bacteria and enhance phagocytosis...

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 site defined by the monoclonal antibody. This epitope or epitope peptide  
 mimc identifies other antibodies that may bind to the lipoteichoic  
 acid epitope. Moreover, the epitope or epitope peptide mimc provides a  
 valuable substrate for the...

DESCR IPTORS: Gram-positive bacteria; Epitopes; Lipoteichoic acid;  
 Monoclonal antibodies; Infection; Vaccines; Phagocytosis; Patents

16/3, K/2 (Item 1 from file: 399)  
 DI ALCG (R) File 399: CA SEARCH (R)  
 (c) 2010 American Chemical Society. All rts. reserv.

140058441 CA: 140(5) 58441v PATENT  
 Oposonic monoclonal and chimeric antibodies specific to lipoteichoic acid

10601171monoclonal.txt  
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 INVENTOR(AUTHOR): Stinson, Jeffrey R.; Schuman, Richard F.; Mond, James  
 J.; Lees, Andrew; Fischer, Gerald Walter  
 LOCATION: USA  
 PATENT: U.S. Pat. Appl. Publ.: US 20030235578 A1 DATE: 20031225  
 APPLI CATION: US 323927 (20021220) \*US 97055 (19980615) \*US PV343503  
 (20011221)  
 PAGES: 42 pp., Cont.-in-part of U.S. 6,610,293. CODEN: USXXCO  
 LANGUAGE: English  
 PATENT CLASSIFICATIONS:  
 CLASS: 424130100; A61K-039/395A; C07K-016/18B

16/3, K/3 (Item 2 from file: 399)  
 DI ALCQ(R) File 399: CA SEARCH(R)  
 (c) 2010 American Chemical Society. All rts. reserv.

139306536 CA: 139(20)306536v PATENT  
 Production of humanized antibodies by optimizing individual framework  
 regions for diagnostic and therapeutic uses  
 INVENTOR(AUTHOR): Wong, Hing C.; Stinson, Jeffrey R.; Mosquera, Luis A.  
 LOCATION: USA  
 ASSIGNEE: Sunol Molecular Corporation  
 PATENT: U.S. Pat. Appl. Publ.: US 20030190705 A1 DATE: 20031009  
 APPLI CATION: US 230880 (20020829) \*US PV343306 (20011029) \*US 990586  
 (20011121)  
 PAGES: 95 pp., Cont.-in-part of U.S. Pat. Appl. 2003 109,680. CODEN:  
 USXXCO LANGUAGE: English  
 PATENT CLASSIFICATIONS:  
 CLASS: 435069100; C12P-021/02A; C12N-005/06B; C07K-016/44B;  
 C07H-021/04B

16/3, K/4 (Item 3 from file: 399)  
 DI ALCQ(R) File 399: CA SEARCH(R)  
 (c) 2010 American Chemical Society. All rts. reserv.

139116277 CA: 139(8)116277p PATENT  
 Oposonic monoclonal and chimeric antibodies specific for lipoteichoic acid  
 of Gram positive bacteria  
 INVENTOR(AUTHOR): Stinson, Jeffrey R.; Schuman, Richard F.; Mond, James  
 J.; Lees, Andrew; Fischer, Gerald Walter  
 LOCATION: USA  
 ASSIGNEE: Biosynex Incorporated  
 PATENT: PCT International: WO 200359260 A2 DATE: 20030724  
 APPLI CATION: WO 2002US41033 (20021223) \*US PV343503 (20011221)  
 PAGES: 99 pp. CODEN: PIXXD2 LANGUAGE: English  
 PATENT CLASSIFICATIONS:  
 CLASS: A61K-000/A  
 DESIGNATED COUNTRIES: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; BZ;  
 CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; ES; FI; GB; GD; GE; GH;  
 GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU;  
 LV; MA; MD; MG; MK; MN; MW; MX; MZ; NO; NZ; OM; PH; PL; PT; RO; RU; SC; SD;  
 SE; SG; SK; SL; TJ; TM; TN; TR; TT; TZ; UA; UG; US; UZ; VC; VN; YU; ZA; ZM;  
 ZW AM; AZ; BY; KG; KZ; MD; RU; TJ; TM DESIGNATED REGIONAL: GH; GM; KE; LS;  
 ; MW; MZ; SD; SL; SZ; TZ; UG; ZM; ZW AT; BE; BG; CH; CY; CZ; DE; DK; EE;  
 ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE; SI; SK; TR; BF; BJ; CF; CG;  
 CI; CM; CA; GN; GQ; GW; ML; MR; NE; SN; TD; TG  
 ? s (mono? or antibod? or immunoglobulin) and (lipoteichoic or teichoic)

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 Processing  
 Processed 20 of 56 files ...

Processing  
 Processed 50 of 56 files ....  
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 1520005 IMMUNOGLOBULIN  
 14841 LI POTEI CHOI C  
 13613 TEI CHOI C  
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 OR TEI CHOI C)  
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 S18 622 S17 AND IGG  
 ? s s18 and monoclonal  
 622 S18  
 1762291 MONOCLONAL  
 S19 61 S18 AND MONOCLONAL  
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>>>Duplicate detection is not supported for File 393.

>>>Duplicate detection is not supported for File 391.

>>>Records from unsupported files will be retained in the RD set.

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>>>KW C option is not available in file(s): 399

20/3, K/1 (Item 1 from file: 5)  
 DIALOG(R) File 5: Biosis Previews(R)  
 (c) 2010 The Thomson Corporation. All rts. reserv.

18662668 BIOSIS NO: 200600008063  
 Anti-proteinase 3 antibodies (c-ANCA) prime CD14-dependent leukocyte  
 activation  
 AUTHOR: Hattar Katja; van Buerck Sandra; Bickenbach Annette; Gandel Ulrich  
 ; Maus Ulrich; Lohmeyer Juergen; Osernok Elena; Hartung Thomas; Seeger  
 Verner; Grimmer Friedrich; Sibelius Ulf (Reprint)  
 AUTHOR ADDRESS: Univ Gessen, Dept Internal Med, D-35385 Gessen, Germany\*\*  
 Germany  
 AUTHOR E-MAIL ADDRESS: ulf.sibelius@nnere.med.uni-giessen.de  
 JOURNAL: Journal of Leukocyte Biology 78 (4): p992-1000 OCT 2005 2005  
 ISSN: 0741-5400  
 DOCUMENT TYPE: Article  
 RECORD TYPE: Abstract  
 LANGUAGE: English

Anti-proteinase 3 antibodies (c-ANCA) prime CD14-dependent leukocyte  
 activation

... ABSTRACT: Wegener's granulomatosis (WG), a pathogenetic role has been  
 proposed for circulating anti-neutrophil-cytoplasmic antibodies  
 (ANCA) targeting proteinase 3 (PR3). Disease activation in WG appears to  
 be triggered by bacterial infections. In the present study, we  
 characterized the effect of anti-PR3 antibodies on in vitro  
 activation of isolated monocytes and neutrophils by the bacterial  
 cell-wall components lipopolysaccharide (LPS) and lipoteichoic acid  
 (LTA). Although sole incubation of monocytes and neutrophils with  
 monoclonal anti-PR3 antibodies induced the release of minor  
 quantities of the chemokine interleukin-8 (IL-8), preincubation with  
 anti-PR3 antibodies, but not with isotype-matched control  
 immunoglobulin G (IgG), resulted in a markedly enhanced IL-8



liberation upon LPS challenge. The priming response was...

...TNF- $\alpha$  and IL-6 synthesis. Comparable priming occurred when leukocytes were preincubated with ANCA-IgG derived from WG serum but not with normal IgG. The priming effect of the anti-PR3 antibody pretreatment was reproduced for LTA challenge of monocytes and neutrophils but not for leukocyte stimulation with TNF- $\alpha$ . Flow cytometric analysis revealed an increase in monocyte and neutrophil membrane CD14 expression during the anti-PR3 priming. We conclude that cytoplasmic ANCA specifically prime CD14-dependent monocytes and neutrophils for activation. The resulting enhanced responsiveness to bacterial pathogens may contribute to the...

...REGISTRY NUMBERS: lipoteichoic acid

DESCRIPTIONS:

ORGANISMS: PARTS ETC: monocyte-

CHEMICALS & BIOCHEMICALS: ...monoclonal antibodies; ...

...immunoglobulin G (IgG); ...

...lipoteichoic acid (LTA)...

...anti-neutrophil cytoplasmic antibodies (ANCA)...

...anti-proteinase 3 antibodies;

20/3, K/2 (Item 2 from file: 5)

DIALOG File 5: Biosis Previews(R)

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17135994 BIOSIS NO.: 200300094713

4-1BB (CD137) differentially regulates murine in vivo protein- and polysaccharide-specific immunoglobulin isotype responses to *Streptococcus pneumoniae*.

AUTHOR: Wu Zheng-Qi; Khan Abdul Q; Shen Yi; Wolcott Karen M; Dawicki

Wojciech; Watts Tania H; Mittler Robert S; Snapper Clifford M (Reprint)

AUTHOR ADDRESS: Department of Pathology, Uniformed Services University of the Health Sciences, 4301 Jones Bridge Rd., Bethesda, MD, 20814, USA\*\*USA

AUTHOR E-MAIL ADDRESS: csnapper@suhs.mil

JOURNAL: Infection and Immunity 71 (1): p196-204 January 2003 2003

MEDIUM: print

ISSN: 0019-9567 (ISSN print)

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: English

4-1BB (CD137) differentially regulates murine in vivo protein- and polysaccharide-specific immunoglobulin isotype responses to *Streptococcus pneumoniae*.

...ABSTRACT: an in vivo protein (pneumococcal surface protein A (PspA))- and polysaccharide (phosphorylcholine (PC) determinant of teichoic acid)-specific immunoglobulin (Ig) isotype response to *Streptococcus pneumoniae* was dependent on CD4+ TCR $\alpha$ phbeta+ T cells and B7...

...We demonstrate that mice genetically deficient in 4-1BB elicit a markedly reduced IgM and IgG anti-PC but normal primary and secondary IgG anti-PspA responses to *S. pneumoniae* relative to those for wild-type mice. However, injection of an agonistic anti-4-1BB monoclonal antibody (MAb), while having no significant effect

10601171monoclonal.txt  
on the anti-PC response, strongly inhibits the primary...

DESCRIPTORS:

CHEMICALS & BIOCHEMICALS: ...immunoglobulin M...

...immunoglobulin G...

...anti-4-1BB monoclonal antibody;

20/3, K/3 (Item 3 from file: 5)  
DIALOG File 5: Biosis Previews(R)  
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16086612 BIOSIS NO.: 200100258451

Anti-PR3-antibodies (c-ANCA) prime CD14-dependent monocyte  
activation

AUTHOR: Hattar Katja (Reprint); von Buerk Sandra (Reprint); Bickenbach  
Annette (Reprint); Csernok Elena (Reprint); Seeger Werner (Reprint);  
Grimminger Friedrich (Reprint); Sielaff Ulf (Reprint)

AUTHOR ADDRESS: JLU Giessen, Klinikstrasse 36, Giessen, Hessen, 35392,  
Germany\*\*Germany

JOURNAL: FASEB Journal 15 (5): pA1065 March 8, 2001 2001

MEDIUM: print

CONFERENCE/MEETING: Annual Meeting of the Federation of American Societies  
for Experimental Biology on Experimental Biology 2001 Orlando, Florida,  
USA March 31-April 04, 2001; 20010331

ISSN: 0892-6638

DOCUMENT TYPE: Meeting; Meeting Abstract

RECORD TYPE: Abstract

LANGUAGE: English

Anti-PR3-antibodies (c-ANCA) prime CD14-dependent monocyte  
activation

ABSTRACT: Anti-neutrophil-cytoplasmic-antibodies (c-ANCA) targeting  
Proteinase-3 (PR3), a serine protease of neutrophils and monocytes,  
have been implicated in the pathogenesis of systemic vasculitis, such as  
Wegener's Granulomatosis (WG). While the interaction of anti-PR3-  
antibodies with neutrophils has been extensively studied in vitro,  
their effect on inflammatory monocyte behaviour is less well  
characterized. In the present study, we investigated the influence of  
monoclonal anti-PR3-antibodies (anti-PR3) and anti-PR3-  
antibodies from WG-sera (c-ANCA) on cytokine release from highly  
purified human monocytes. Monocytes were isolated by  
counter-current centrifugal elutriation, and secretion products were  
analyzed by ELISA techniques. PR3 was found to be constitutively  
expressed on the surface of isolated monocytes in the absence of  
additional priming procedures. Anti-PR3 challenge per se provoked only  
the liberation of some minor amounts of IL-8. However, when preincubated  
with anti-PR3-antibodies, monocyte IL-8 release in response  
to lipopolysaccharide (LPS)-challenge was massively amplified. This  
effect was reproduced by c-ANCA originating from WG-sera, whereas human  
and murine control IgG were ineffective. The anti-PR3-related  
priming was equally observed when lipoteichoic acid (LTA) from  
Staph. aureus was employed, but not in response to stimulation with  
TNF-alpha. Studies with the function-blocking anti-CD14-antibody  
MY-4 suggested that LPS and LTA-induced monocyte activation were  
both dependent on CD14, whereas TNF-alpha activated monocytes by a  
CD14-independent mechanism. Flow-cytometry studies revealed a massive  
upregulation of membrane CD14-expression in response to  
anti-PR3-treatment. We conclude that anti-PR3-antibodies  
selectively prime CD14-dependent monocyte activation with  
upregulation of membrane CD14 as mechanism underlying the priming

10601171monoclonal.txt  
response. This anti-PR3-induced enhanced responsiveness of monocytes for activation with bacterial cell wall components such as LPS or LTA may contribute to...

DESCRIPTORS:  
ORGANISMS: PARTS ETC: monocyte--  
CHEMICALS & BIOCHEMICALS: ... anti-neutrophil-cytoplasmic-antibodies {c-ANCA...}

...lipoteichoic acid

20/3, K/4 (Item 4 from file: 5)  
DIALOG(R) File 5: Biosis Previews(R)  
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11867838 BIOSIS NO.: 199396032254  
Human monoclonal antibody HA-1A binds to endotoxin via an epitope in the lipid A domain of lipopolysaccharide  
AUTHOR: Bogard Warren C Jr (Reprint); Siegel Scott A; Leone Ann Q; Damiano Everette; Shealy David J; Ely Therese M; Frederick Bart; Mascelli Mary A; Siegel Richard C  
AUTHOR ADDRESS: Centocor, Inc., 200 Great Valley Parkway, Malvern, PA 19355, USA\* USA  
JOURNAL: Journal of Immunology 150 (10): p4438-4449 1993  
ISSN: 0022-1767  
DOCUMENT TYPE: Article  
RECORD TYPE: Abstract  
LANGUAGE: English

Human monoclonal antibody HA-1A binds to endotoxin via an epitope in the lipid A domain of lipopolysaccharide

... ABSTRACT: with septic shock, in a controlled clinical trial. To confirm the reported specificity of this antibody for the lipid A domain of endotoxin, several assay systems were developed. These assay systems...

... A prepared from *Salmonella Minnesota* R595 LPS, whereas negative control human IgM mAb or polyclonal antibodies did not. Several experimental approaches were employed to demonstrate the specificity of HA-1A in these assay systems. Both polymyxin B and murine IgG mAb (8A1) with a specificity for lipid A were able to competitively inhibit HA-1A reactivity with lipid A in a dose-dependent manner. Furthermore, a murine IgG anti-IgM mAb (9B5.5) developed against HA-1A was also able to block the...

... assessed. Some weak interaction was seen with cardiolipin and chitin, but not with serum proteins, lipoteichoic acid, or DNA. Collectively, these results conclusively establish that HA-1A binds to the lipid A region of LPS by an interaction with the V region of the antibody.

DESCRIPTORS:  
CHEMICALS & BIOCHEMICALS:  
MISCELLANEOUS TERMS: ANTI BODY PRODUCTION...  
CONCEPT CODES:

20/3, K/5 (Item 5 from file: 5)  
DIALOG(R) File 5: Biosis Previews(R)  
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09700438 BIOSIS NO.: 198988015553  
ANTI-PNEUMOCOCCAL EFFECTS OF C-REACTIVE PROTEIN AND MONOCLONAL

10601171monoclonal.txt  
 ANTI BODIES TO PNEUMOCOCCAL CELL WALL AND CAPSULAR ANTIGENS  
 AUTHOR: BRILES D E (Reprint); FORMAN C; HOROWITZ J C; VOLANAKIS J E;  
 BENJAMIN W H JR; MODIANI L S; ELDRIDGE J; BROOKS J  
 AUTHOR ADDRESS: DEP PEDIATR, UNIV OF ALA AT BIRMINGHAM, BIRMINGHAM, ALA  
 35294, USA\*\*USA  
 JOURNAL: Infection and Immunity 57 (5): p1457-1464 1989  
 ISSN: 0019-9567  
 DOCUMENT TYPE: Article  
 RECORD TYPE: Abstract  
 LANGUAGE: ENGLISH

ANTI PNEUMOCOCCAL EFFECTS OF C-REACTIVE PROTEIN AND MONOCLONAL  
 ANTI BODIES TO PNEUMOCOCCAL CELL WALL AND CAPSULAR ANTIGENS

ABSTRACT: Antibodies to pneumococcal capsular polysaccharides are well known for their ability to protect against pneumococcal infection. Recent studies indicate that antibodies to cell antigens, including pneumococcal surface protein A and the phosphocholine (PC) determinant of teichoic acids as well as human C-reactive protein (which also binds to PC), can protect...

...and peritoneal cavity. Our findings extend previous results indicating that human C-reactive protein and antibodies to noncapsular antigens are generally less protective than anticapsular antibodies. The new results obtained indicate the following: (i) mouse protection studies with intraperitoneal and intravenous infections provide very similar results; (ii) monoclonal immunoglobulin G2a (IgG2a) antibodies to PC, like IgG1, IgG2b, and IgG3 antibodies to PC, are highly protective against pneumococcal infection in mice; (iii) human antibody to PC is able to protect against pneumococcal infection in mice; (iv) antibodies to PspA are effective at mediating blood and peritoneal clearance of pneumococci; (v) complement is required for the in vivo protective effects of both IgG and IgM antibodies to PC; (vi) IgG1, IgG2b, and IgG3 anti-PC antibodies all mediate complement-dependent lysis of PC-conjugated erythrocytes; and (vi) antibodies and human C-reactive proteins that are reactive with capsular antigens but not cell wall...

20/3, K/6 (Item 6 from file: 5)  
 DI ALCOG R) File 5: Biosis Previews(R)  
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07338477 BIOCIS NO.: 198478073884  
 SURFACE MARKERS OF HUMAN GINGIVAL FIBROBLASTS IN-VITRO CHARACTERIZATION AND  
 MODULATION BY ENZYMES AND BACTERIAL PRODUCTS  
 AUTHOR: BARBER S (Reprint); POWELL R N; SEYMOUR G J  
 AUTHOR ADDRESS: DENTAL SCH, TURBOT ST, BRI SBANE 4000, AUSTRALIA\*\*AUSTRALIA  
 JOURNAL: Journal of Oral Pathology 13 (3): p221-230 1984  
 ISSN: 0300-9777  
 DOCUMENT TYPE: Article  
 RECORD TYPE: Abstract  
 LANGUAGE: ENGLISH

ABSTRACT: Surface markers of human gingival fibroblasts in vitro were investigated using monoclonal and heterologous antisera against a range of cell surface antigens, together with rosetting techniques, to characterize surface receptors for IgG and [complement] C3. W-38 fibroblasts [embryonic lung] and human peripheral blood monocytes were used as control cells. Human gingival fibroblasts exhibited complement receptors and .beta.2-microglobulin...

...DR antigens, and they additionally exhibited a granulocyte antigen not  
 Page 20

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apparent on W-38 cells. Monolayers of the gingival fibroblasts were further exposed for short periods to varying concentrations of enzymes (trypsin, collagenase and neuraminidase), bacterial extracts (lipopolysaccharide and lipoteichoic acid) and crude supra- and subgingival plaque sonicates. Surface-marker analysis was then carried out...

DESCRIPTORS: HUMAN EMBRYONIC LUNG W-38 CELLS MONOCYTE TRYPSIN COLLAGENASE VI BRUCHOLERA NEURAMINIDASE PLAQUE SONICATE CELL SURFACE ANTI GEN GRANULOCYTE ANTI GEN IMMUNOGLOBULIN G..

...C-3 SURFACE RECEPTORS HLA-DR ANTI GEN BETA-2 MICRO GLOBULIN LIPO POLY SACCHARIDE LIPO TEICHOIC ACID/

20/3, K/7 (Item 1 from file: 24)  
DI ALCO(R) File 24: CSA Life Sciences Abstracts  
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0003211953 IP ACCESSION NO: 8124962  
Peptidoglycan and mannose-based molecular patterns trigger the arachidonic acid cascade in human polymorphonuclear leukocytes

Valera, I; Vigo, AG; Alonso, S; Barbolla, L; Crespo, MS; Fernandez, N Instituto de Biología y Genética Molecular, C/ Sanz y Fores s/n, 47003, Valladolid, Spain, [mailto:mscres@bgm.uva.es]

Journal of Leukocyte Biology, v 81, n 4, p 925-933, April 1, 2007  
PUBLICATION DATE: 2007

DOCUMENT TYPE: Journal Article  
RECORD TYPE: Abstract  
LANGUAGE: English  
SUMMARY LANGUAGE: English  
ISSN: 0741-5400  
FILE SEGMENT: Immunology Abstracts

ABSTRACT:  
... inducers of AA metabolism as they produced the release of complement-coated zymosan particles and IgG immune complexes. In sharp contrast, lipoteichoic acid, LPS, muramyl dipeptide, and the bacterial lipoprotein mimipalmitoyl-3-cysteine-serine-lysine-4 failed...

DESCRIPTORS: Abundance; Antigen-antibody complexes; Arachidonic acid; Calpain; Fungi; Immunoglobulin G; Inflammation; Leukocytes; Leukocytes (polymorphonuclear); Leukotriene B4; Lipids; Lipopolysaccharides; Lipoproteins; Lipoteichoic acid; Lipoxigenase; Metabolism; Monoclonal antibodies; Pattern recognition; Phospholipase A2; Prostaglandin E2; Prostaglandin-endoperoxide synthase; Signal transduction; TLR2 protein; Toll-like...

20/3, K/8 (Item 1 from file: 34)  
DI ALCO(R) File 34: Sci Search(R) Cited Ref Sci  
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06141338 Genuine Article#: XX775 No. References: 31  
Title: Immunopathologic features of Staphylococcus epidermidis-induced endophthalmitis in the rat  
Author: Ravindranath RMH (REPRINT); Hasan SA; Mondino BJ  
Corporate Source: UNIV SO CALIF, CTR CRANIOFACIAL MOL BIOL, 2250 ALCAZAR ST/ LOS ANGELES/ CA/ 90033 (REPRINT); UNIV CALIF LOS ANGELES, DORIS STEIN  
Page 21

10601171monoclonal.txt  
EYE RES CTR, JULES STEIN EYE INST/LOS ANGELES/ CA 90024  
Journal: CURRENT EYE RESEARCH, 1997, V16, N10 (OCT), P1036-1043  
ISSN: 0271-3683 Publication Date: 19971000  
Publisher: OXFORD UNIV PRESS, GREAT CLARENDON ST, OXFORD, ENGLAND OX2 6DP  
Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

...Abstract: saline. The clinical scores, cellular infiltrate in vitreous, and levels of serum and vitreous IgM IgG and IgA to glycerol teichoic acid (CTA), the major antigenic determinant of S. epidermidis cell wall, were all measured from...

...cells (CD45+/CD3-) was confirmed by flow cytometric analysis of pooled vitreous humor, IgM and IgG but not IgA antibodies to GTA were found in vitreous of injected eyes. The peak of anti-GTA IgM...  
...epidermidis-infected rats on day 1 and declined by day 7. In contrast to vitreous antibodies, serum anti-GTA IgM antibodies were significantly elevated throughout the course of S. epidermidis endophthalmitis. A weak IgG but no IgA response were observed in serum. Anti-GTA antibodies were also found in low level in normal sera but not in normal vitreous.

Conclusions. The vitreous antibodies may be involved in neutrophil-mediated opsonophagocytosis leading to 'spontaneous sterility' of the bacteria, and...  
...Descriptors: enzyme-linked immunosorbent assay (ELISA); endophthalmitis; IgM antibodies; Staphylococcus epidermidis; vitreous; rat  
...Identifiers: AUREUS ENDOPHTHALMITIS; IMMUNE-RESPONSE; RABBIT MODEL; LOCALIZATION; SPECIFICITY; ANTIBODIES; ANTIGEN; EYE  
Research Fronts: 95-1513 001 (NATURAL ANTIBODIES; PROTEIN ANTIGENS; IMMUNOMODULATION OF EXPERIMENTAL AUTOIMMUNE MYASTHENIA GRAVIS; MONOCLONAL AUTOANTIBODY; SOMATIC MUTATIONS)

20/3, K/9 (Item 2 from file: 34)  
DIALOG(R) File 34: Sci Search(R) Cited Ref Sci  
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01067688 Genuine Article#: FT829 No. References: 46  
Title: ELISA PROCEDURES FOR THE MEASUREMENT OF IGG SUBCLASS ANTIBODIES TO BACTERIAL-ANTIGENS  
Author: RUTHS S; DRIEDJIK PC; VEENING RS; OUT TA  
Corporate Source: UNI V AMSTERDAM ACAD MED CTR, CLIN IMMUNOL LAB, B 1 236, MEI BERGDRIEF 9/1105 AZ AMSTERDAM/NETHERLANDS/; UNI V AMSTERDAM ACAD MED CTR, CLIN IMMUNOL LAB, B 1 236, MEI BERGDRIEF 9/1105 AZ AMSTERDAM/NETHERLANDS/; UNI V AMSTERDAM ACAD MED CTR, DEPT PEDI AT/1105 AZ AMSTERDAM/NETHERLANDS/; UNI V AMSTERDAM ACAD MED CTR, EXPTL & CLIN IMMUNOL LAB CLB/1105 AZ AMSTERDAM/NETHERLANDS/  
Journal: JOURNAL OF IMMUNOLOGICAL METHODS, 1991, V140, N1, P67-78  
Language: ENGLISH Document Type: ARTICLE (Abstract Available)

Title: ELISA PROCEDURES FOR THE MEASUREMENT OF IGG SUBCLASS ANTIBODIES TO BACTERIAL-ANTIGENS  
Abstract: We have developed enzyme-linked immunosorbent assays (ELISA) of IgG subclass antibodies against whole bacteria and bacterial antigens using enzyme-labelled mouse monoclonal antibodies. The properties of different anti-subclass antibodies were compared. In sera from 18 healthy adults we measured the IgG subclass distribution of specific antibodies against Staphylococcus aureus and Haemophilus influenzae b and against distinct bacterial components: pneumococcal capsular polysaccharides, dextran and tetanus toxoid. We found that antibodies against protein (tetanus toxoid) were mainly IgG1, with some contribution of IgG4 and IgG2. Antibodies against

10601171monoclonal.txt  
 polysaccharides (pneumococcal PS and dextran) and whole bacteria were  
 restricted mainly to IgG1 and...  
 ... Descriptors: ELISA; IGG SUBCLASS; ANTI BODY; MONOCLONAL  
 ANTI BODY; STAPHYLOCOCCUS-AUREUS; HAEMOPHILUS-INFLUENZAE-B;  
 PNEUMOCOCCAL CAPSULAR POLYSACCHARIDE; DEXTRAN; TETANUS TOXOID  
 ... Identifiers: INFLUENZAE TYPE-B; LINKED IMMUNOSORBENT-ASSAY; AUREUS  
 TETANUS TOXOID; MONOCLONAL-ANTI BODIES; CAPSULAR  
 POLYSACCHARIDE; GEL-DIFFUSION; IMMUNOGLOBULIN; DEFINITIVENESS; AFFINITY;  
 IMMUNIZATION  
 Research Fronts: 89-0004 003 (IGG SUBCLASSES; PNEUMOCOCCAL  
 ANTI BODIES; EFFECT OF ALLOTYPE G2M N)  
 89-2767 001 (RECURRENT ACUTE OTITIS-MEDIA; PENICILLIN TOLERANCE OF...

20/3, K/10 (Item 1 from file: 72)  
 DI ALCO R File 72: EMBASE  
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0079011268 EMBASE/Medline No: 2002174964  
 The utility of IgG subclass measurement for investigating  
 infection-prone patients  
 Kumararatne D.S.; Joyce H.J.; Jefferis R.  
 Dept. of Clin. Biochem. and Immunol., Addenbrooke's Hospital, Hills Road,  
 Cambridge CB2 2QQ, United Kingdom  
 CORRESP. AUTHOR/AFFILI: Kumararatne D.S.; Dept. of Clin. Biochem. and  
 Immunol., Addenbrooke's Hospital, Hills Road, Cambridge CB2 2QQ, United  
 Kingdom  
 CORRESP. AUTHOR EMAIL: dsk22@cam.ac.uk

CPD Bulletin Immunology and Allergy ( CPD Bull. Immunol. Allergy ) (   
 United Kingdom ) May 27, 2002, 2/2 (44-47)  
 CODEN: CBI AF ISSN: 1367-8949  
 DOCUMENT TYPE: Journal; Review RECORD TYPE: Abstract  
 LANGUAGE: English SUMMARY LANGUAGE: English  
 NUMBER OF REFERENCES: 26

The utility of IgG subclass measurement for investigating  
 infection-prone patients  
 The structure and biological functions of the IgG subclasses are  
 briefly reviewed. The lack of internationally validated reference sera add  
 to the technical...  
 ... which in turn makes it difficult to compare results between different  
 laboratories. The evidence correlating IgG subclass deficiency with  
 susceptibility to infection is weak, leading to a growing scepticism on the  
 use of measuring subclasses when screening for clinically significant  
 immunodeficiency. Measuring specific antibody responses, if necessary  
 after immunisation, is likely to be more useful.

DRUG DESCRIPTIONS:  
 \*immunoglobulin class--endogenous compound--ec; \*immunoglobulin  
 G--endogenous compound--ec  
 antibody--endogenous compound--ec; bacterial polysaccharide  
 --endogenous compound--ec; bacterium lipopolysaccharide--endogenous  
 compound--ec; blood clotting factor 8--endogenous compound--ec; dextran  
 --endogenous compound--ec; immunoglobulin A1--endogenous compound--ec  
 ; immunoglobulin A2--endogenous compound--ec; immunoglobulin D  
 --endogenous compound--ec; immunoglobulin E--endogenous compound--ec;  
 immunoglobulin G1--endogenous compound--ec; immunoglobulin G2  
 --endogenous compound--ec; immunoglobulin G3--endogenous compound--ec  
 ; immunoglobulin G4--endogenous compound--ec; immunoglobulin  
 heavy chain--endogenous compound--ec; immunoglobulin M--endogenous  
 compound--ec; maternal antibody--endogenous compound--ec;

10601171monoclonal.txt  
monoclonal antibody--pharmacology--pd; phospholipase A2  
--endogenous compound--ec; Pneumococcus vaccine--drug therapy--dt;  
Pneumococcus vaccine--pharmacology--pd; rhesus D antigen--endogenous  
compound--ec; teichoic acid--endogenous compound--ec; tetanus toxoid  
--endogenous compound--ec  
MEDICAL DESCRIPTIONS:  
antibody response; assay; common variable immunodeficiency;  
comparative study; correlation analysis; diagnostic value; disease  
predisposition; drug classification; evidence based medicine; Haemophilus  
influenzae type b; human; immunization; immunoglobulin G deficiency  
--diagnosis--di; immunotherapy; in vitro study; in vivo study; influenza  
--drug therapy--dt...  
...CAS REGISTRY NO.: 9014-78-2 (dextran); 37341-29-0 (immunoglobulin  
E); 97794-27-9 (immunoglobulin G); 9007-85-6 (immunoglobulin M); 9001-84-7 (phospholipase A2); 9041-38-7 (teichoic acid); 57425-69-1...

20/3, K/11 (Item 2 from file: 72)  
DIALOG(R) File 72: EMBASE  
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0075458827 EMBASE/Medline No: 1993238383  
Isoelectric focusing of immunoglobulins as a new method of immune  
response analysis in staphylococcal infections  
Tyski S.; Miliy R.; Hryniewicz W  
Department of Bacteriology, National Institute of Hygiene, 24 Chocimska,  
00-791 Warszawa, Poland  
CORRESP. AUTHOR/AFFIL: Tyski S.; Department of Bacteriology, National  
Institute of Hygiene, 24 Chocimska, 00-791 Warszawa, Poland

Serodiagnosis and Immunotherapy in Infectious Disease ( SERODIAGN  
IMMUNOTHER. INFECT. DIS. ) (United Kingdom) August 30, 1993, 5/2  
(109-113)

CODEN: SLIDE ISSN: 0888-0786  
DOI: 10.1016/0888-0786(93)90050-A  
DOCUMENT TYPE: Journal; Article RECORD TYPE: Abstract  
LANGUAGE: English SUMMARY LANGUAGE: English

The study presents a new way of analysis of IgG response to  
staphylococcal antigens. The method is based on the isoelectrofocusing of  
human immunoglobulins and after blotting, their reactivity with purified  
staphylococcal antigens: alpha-toxin, lipase and teichoic acid. The  
method analyses not only total IgG but also the 'monoclonal'  
levels of IgG subclasses (clones based on the isoelectric points of  
immunoglobulins). When the pattern of IgG response to particular  
antigens were compared, a great diversity between patients' sera samples  
was observed. The qualitative and quantitative assessment of sera IgG  
fractions differentiated by pH gradient revealed the individual character  
for each patient. No correlation could be observed between IgG  
pattern and the type of staphylococcal infection. Analysing the subclass of  
IgG showed that for protein antigens (alphatoxin, lipase) it was  
mainly IgG1 but for carbohydrate antigens (teichoic acid) it was  
IgG2. No fractions of IgG3 and IgG4 fractions were observed.

DRUG DESCRIPTIONS:  
\*immunoglobulin G  
MEDICAL DESCRIPTIONS:  
CAS REGISTRY NO.: 97794-27-9 (immunoglobulin G)

20/3, K/12 (Item 3 from file: 72)  
DIALOG(R) File 72: EMBASE



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0075354178 EMBASE/Medline No: 1993133720

Human monoclonal antibody HA-1A binds to endotoxin via an epitope in the lipid A domain of lipopolysaccharide

Bogard Jr. W.C.; Siegel S.A.; Leone A.Q.; Damiano E.; Shealy D.J.; Ely T.M.; Frederick B.; Mascelli M.A.; Siegel R.C.; Machielse B.; Naveh D.; Kaplan P.M.; Caddona P.E.

Centocor, Inc., 200 Great Valley Parkway, Malvern, PA 19355, United States

CORRESP. AUTHOR/AFFIL: Bogard Jr. W.C.; Centocor, Inc., 200 Great Valley Parkway, Malvern, PA 19355, United States

Journal of Immunology ( J. IMMUNOL. ) (United States) May 28, 1993, 150/10 (4438-4449)

CODEN: JOIMAJ ISSN: 0022-1767

DOCUMENT TYPE: Journal; Article RECORD TYPE: Abstract

LANGUAGE: English SUMMARY LANGUAGE: English

Human monoclonal antibody HA-1A binds to endotoxin via an epitope in the lipid A domain of lipopolysaccharide

...with septic shock, in a controlled clinical trial. To confirm the reported specificity of this antibody for the lipid A domain of endotoxin, several assay systems were developed. These assay systems...

...A prepared from *Salmonella* Minnesota R595 LPS, whereas negative control human IgM mAb or polyclonal antibodies did not. Several experimental approaches were employed to demonstrate the specificity of HA-1A in these assay systems. Both polymyxin B and murine IgG mAb (8A1) with a specificity for lipid A were able to competitively inhibit HA-1A reactivity with lipid A in a dose-dependent manner. Furthermore, a murine IgG anti-IgM mAb (9B5.5) developed against HA-1A was also able to block the...

...assessed. Some weak interaction was seen with cardiolipin and chitin, but not with serum proteins, lipoteichoic acid, or DNA. Collectively, these results conclusively establish that HA-1A binds to the lipid A region of LPS by an interaction with the V region of the antibody.

## DRUG DESCRIPTIONS:

\*monoclonal antibody--drug analysis--an; \*monoclonal antibody--drug development--dv; \*monoclonal antibody--drug dose--do; \*monoclonal antibody--pharmacology--pd

## MEDICAL DESCRIPTIONS:

antibody specificity; antibody structure; article; dose response; enzyme linked immunosorbent assay; gram negative infection; human; human cell; membrane...

20/3, K/13 (Item 1 from file: 73)

DIALOG File 73: EMBASE

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0073234042 EMBASE/Medline No: 1986088076

ELISA detection of human IgG subclass antibodies to

*Streptococcus mutans*

Challacombe S.J.; Biggstaff M.; Greenall C.; Kemeny D.M.

Department of Oral Immunology and Microbiology, United Medical and Dental Schools, Guy's Hospital, London SE1 9RT, United Kingdom

CORRESP. AUTHOR/AFFIL: Department of Oral Immunology and Microbiology, United Medical and Dental Schools, Guy's Hospital, London SE1 9RT, United Kingdom

10601171monoclonal.txt  
Journal of Immunological Methods ( J. IMMUNOL. METHODS ) ( Netherlands )  
May 7, 1986, 87/1 (95-102)  
CODEN: JIMMBD ISSN: 0022-1759  
DOI: 10.1016/0022-1759(86)90348-0  
DOCUMENT TYPE: Journal; Article RECORD TYPE: Abstract  
LANGUAGE: English

ELISA detection of human IgG subclass antibodies to  
Streptococcus mutans

A sensitive enzyme-linked immunosorbent assay (ELISA) has been developed to measure IgG subclass antibodies against whole cells of Streptococcus mutans and to a purified streptococcal antigen (SA 1/II). Bacterial cells were bound to the solid phase using methyl glyoxal and mouse monoclonal antisera against IgG and each IgG subclass were used to detect antibodies. Natural antibodies to S. mutans were predominantly of the IgG1 and IgG2 subclasses, though IgG3 and IgG4 antibodies were detectable in most subjects, and were the majority response in a few subjects. Antibodies to SA 1/II were predominantly of the IgG1 subclass with virtually no activity detectable in the IgG3 and IgG4 subclasses. Inhibition studies suggested some restriction of IgG subclass responses to bacterial antigens since SA 1/II and a polysaccharide could inhibit binding of all subclasses to whole cells of S. mutans equally, whereas glucosyltransferase, lipoteichoic acid and dextran showed greatest inhibition of the IgG3 and IgG4 subclasses.

DRUG DESCRIPTIONS:  
\*immunoglobulin G; \*immunoglobulin subclass  
MEDICAL DESCRIPTIONS:  
CAS REGISTRY NO.: 97794-27-9 (immunoglobulin G)

20/3, K/14 (Item 2 from file: 73)  
DIALOG(R) File 73: EMBASE  
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0072730350 EMBASE/Medline No: 1984060766  
IgG subclass distribution of antibodies against S. aureus  
teichoic acid and alpha-toxin in normal and immunodeficient donors  
Hammarstrom L.; Granstrom M.; Okselius V.; et al  
Department of Clinical Immunology, Huddinge University Hospital, S-14186  
Huddinge, Sweden:  
CORRESP. AUTHOR/AFFIL: Department of Clinical Immunology, Huddinge  
University Hospital, S-14186 Huddinge, Sweden

Clinical and Experimental Immunology ( CLIN. EXP. IMMUNOL. ) ( United  
Kingdom ) March 30, 1984, 55/3 (593-601)  
CODEN: CEXIA ISSN: 0009-9104  
DOCUMENT TYPE: Journal; Article RECORD TYPE: Abstract  
LANGUAGE: English

IgG subclass distribution of antibodies against S. aureus  
teichoic acid and alpha-toxin in normal and immunodeficient donors

IgM, IgG, IgA and IgE class and IgG and IgA subclass levels  
were determined in 18 IgG2 deficient and six IgG3 deficient donors...  
...locus on chromosome 14. IgG3 subclass deficiency was not associated with  
further deficiencies. Specific anti-teichoic acid antibodies  
were lacking in most IgG2 deficient donors supporting the notion that anti-  
teichoic acid antibodies are normally of this subclass. This  
was also confirmed in a subclass-specific ELISA using sera from normal  
donors although substantial amounts of specific IgG1 antibodies were  
also noted. Two IgG2 deficient donors had normal IgG titres (IgG1 in

10601171monoclonal.txt  
the subclass specific ELISA) and the lack of IgG1 anti-teichoic acid  
antibodies in most IgG2 deficient donors may suggest a lack of  
maturation of the appropriate idiotype. IgG antibodies to  
alpha-toxin, a pure protein, were within the lower normal range in a large  
...

DRUG DESCRIPTIONS:

\*alpha toxin; \*immunoglobulin G  
monoclonal antibody; unclassified drug

MEDICAL DESCRIPTIONS:

DRUG TERMS (UNCONTROLLED): teichoic acid antibody  
CAS REGISTRY NO.: 97794-27-9 (immunoglobulin G)

20/3, K/15 (Item 1 from file: 155)  
DIALOG(R) File 155: MEDLINE(R)  
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09102492 PM D: 2925841

Extended repertoire of specific antibodies in CSF of patients with  
subacute sclerosing panencephalitis compared to those with multiple  
sclerosis: anti-bacterial antibodies are also increased.

Persson M A; Laurenzi M A; Vranjesovic D  
Department of Clinical Immunology, Karolinska Institute, Huddinge  
Hospital, Sweden.

Journal of neuroimmunology (NETHERLANDS) Apr 1989, 22 (2) p135-42,  
ISSN 0165-5728--Print Journal Code: 8109498

Publishing Model Print

Document type: Comparative Study; Journal Article; Research Support,  
Non-U.S. Gov't

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

Extended repertoire of specific antibodies in CSF of patients with  
subacute sclerosing panencephalitis compared to those with multiple  
sclerosis: anti-bacterial antibodies are also increased.

...subacute sclerosing panencephalitis (SSPE), 21 with multiple sclerosis  
(MS) and 16 controls were analyzed for IgG subclass pattern of  
anti-viral and anti-bacterial antibodies. In CSF of SSPE and MS  
patients IgG1 and IgG4 antibodies to measles and IgG1 to mumps were  
increased compared to the controls. In addition, the SSPE patients had  
elevated levels of IgG1 to PPD, teichoic acid, and to dextran in CSF.  
The group of MS patients had decreased levels of IgG1 antibodies to  
Staphylococcus aureus alpha-toxin.

Descriptors: \*Antibodies--cerebrospinal fluid--CF; \*Antibodies%%  
% Bacterial--analysis--AN; \*Multiple Sclerosis--immunology--IM; \*Subacute  
Sclerosis Panencephalitis--immunology--IM Adolescent; Adult; Aged;  
Antibodies, Monoclonal--diagnostic use--DU; Antibodies,  
Monoclonal--immunology--IM Antibody Specificity; Child; Humans  
--Immunoglobulin G--analysis--AN; Immunoglobulin G  
--cerebrospinal fluid--CF; Immunoglobulins--analysis--AN; Middle Aged;  
Multiple Sclerosis--cerebrospinal fluid--CF; Oligoclonal...  
Chemical Name: Antibodies; Antibodies, Bacterial;  
Antibodies, Monoclonal; Immunoglobulin G; Immunoglobulins  
; Oligoclonal Bands

20/3, K/16 (Item 1 from file: 399)  
DIALOG(R) File 399: CA SEARCH(R)  
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140058441 CA: 140(5) 58441v PATENT  
Page 27

10601171monoclonal.txt  
Oposonic monoclonal and chimeric antibodies specific to lipoteichoic acid of Gram positive bacteria for diagnosis and treatment of infection  
INVENTOR(AUTHOR): Stinson, Jeffrey R.; Schuman, Richard F.; Mond, James J.; Lees, Andrew; Fischer, Gerald Walter  
LOCATION: USA  
PATENT: U.S. Pat. Appl. Publ.: US 20030235578 A1 DATE: 20031225  
APPLICATI ON: US 323927 (20021220) \*US 97055 (19980615) \*US PV343503 (20011221)  
PAGES: 42 pp., Cont.-in-part of U.S. 6,610,293. CODEN: USXXCO  
LANGUAGE: English  
PATENT CLASSIFICATI ONS:  
CLASS: 424130100; A61K-039/395A; C07K-016/18B

20/3, K/17 (Item 2 fromfile: 399)  
DI ALOC(R) File 399: CA SEARCH(R)  
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130080349 CA: 130(7) 80349m PATENT  
Oposonic and protective monoclonal and chimeric antibodies specific for lipoteichoic acid of gram positive bacteria  
INVENTOR(AUTHOR): Fischer, Gerald W.; Schuman, Richard F.; Wong, Hing; Stinson, Jeffrey L.  
LOCATION: USA  
ASSIGNEE: Henry M Jackson Foundation for the Advancement of Military Medicine  
PATENT: PCT International ; WO 9857994 A2 DATE: 19981223  
APPLICATI ON: WO 98US12402 (19980616) \*US 49871 (19970616)  
PAGES: 150 pp. CODEN: PIXXD2 LANGUAGE: English  
PATENT CLASSIFICATI ONS:  
CLASS: C07K-016/00A  
DESIGNATED COUNTRIES: AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; CA; CH; CN; CU; CZ; DE; DK; EE; ES; FI; GB; GE; GH; GM; GW; HU; ID; IL; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU; LV; MD; MG; MK; MN; MW; MX; NO; NZ; PL; PT; RO; RU; SD; SE; SG; SI; SK; SL; TJ; TM; TR; TT; UA; UG; UZ; VN; YU; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM DESIGNATED REGIONAL: GH; GM; KE; LS; MW; SD; SZ; UG; ZW AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE; BF; BJ; CF; CG; CI; CM; GA; GN; ML; MR; NE; SN; TD; TG

20/3, K/18 (Item 1 fromfile: 357)  
DI ALOC(R) File 357: Derwent Biotech Res.  
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0444208 DBR Accession No.: 2008-02405 PATENT  
New pentavalent Staphylococcal antigen composition comprises S. aureus Type 5 antigen, Type 8 antigen, 336 antigen, alpha-toxin antigen, and Staphylococcal leukocidin antigen, for treating methicillin resistant S. aureus infections - immunotherapy method involving preparation of vaccine composition comprising of type 5 antigen, 336 antigen, alpha-toxin antigen and leukocidin antigen-specific monoclonal antibody, useful for the prevention and treatment of methicillin resistant Staphylococcus aureus infection  
AUTHOR: TAYLOR K L; FATTOM A I  
PATENT ASSIGNEE: NABI BIOPHARMACEUTICALS 2007  
PATENT NUMBER: WO 2007145689 PATENT DATE: 20071221 WPI ACCESSI ON NO.: 2008-B51273 (2008010)  
PRI ORIT Y APPLI C. NO.: US 875363 APPLI C. DATE: 20061218  
NATI ONAL APPLI C. NO.: WO 2007US5084 APPLI C. DATE: 20070227  
LANGUAGE: English

...composition comprising of type 5 antigen, 336 antigen, alpha-toxin antigen and leukocidin antigen-specific monoclonal antibody

useful for the prevention and treatment of methicillin resistant

Staphylococcus aureus infection

... ABSTRACT: new. DETAILED DESCRIPTION - INDEPENDENT CLAIMS are: (1) a method of making a hyperimmune specific intravenous immunoglobulin (IVIg) preparation; (2) a pentavalent Staphylococcal antibody composition comprising (a) a first antibody that specifically binds to a S. aureus Type 5 antigen, (b) a second antibody that specifically binds to a S. aureus Type 8 antigen, (iii) a third antibody that specifically binds to a S. aureus 336 antigen, (iv) a fourth antibody that specifically binds to a S. aureus alpha-toxin antigen, and (v) a fifth antibody that specifically binds to an Staphylococcal leukocidin antigen; (3) a protective antibody composition, comprising (a) a first antibody that specifically binds to an S. aureus alpha-toxin antigen and (b) at least one second antibody that specifically binds to a bacterial antigen other than the S. aureus alpha-toxin antigen...

... comprises one or more additional bacterial antigens selected from S. epidermidis PS1, S. epidermidis GP1, lipoteichoic acid (LTA), and/or microbial surface components recognizing adhesive matrix molecule (MSCRAMM) proteins. Specifically, the...

... toxin antigen is conjugated to at least one of the additional bacterial antigens. In the antibody composition above, at least one of the first through fifth antibodies is a monoclonal antibody or a neutralizing antibody. The fifth antibody specifically binds to a Staphylococcal leukocidin antigen. The protective antibody composition comprises a sub-optimal amount of the first antibody and a sub-optimal amount of the second antibody. It is prepared by (a) administering (i) an S. aureus alpha-toxin antigen and (ii)...

... toxin antigen to a human subject, (b) harvesting plasma from the subject, and (c) purifying immunoglobulin from the subject. Preferred Method: Making a hyperimmune specific IVIg preparation comprises administering to a subject the composition, harvesting plasma from the subject, and purifying an immunoglobulin from the subject. Treating or preventing S. aureus infection comprises administering to a subject the...

... administering to a patient the composition comprising (a) a Staphylococcal leukocidin antigen or (b) an antibody that specifically binds to a Staphylococcal leukocidin antigen. Neutralizing Staphylococcal leukocidin infection comprising administering to a patient the composition comprising (a) an S. aureus PVL antigen subunit or (b) an antibody that specifically binds to an S. aureus PVL antigen subunit. ACTIVITY - Antibacterial. Mice that were administered 200 micrograms T5CP specific IgG (AltaStaph IgG) supplemented with 4 mg of alpha-Toxoid derived total rabbit IgG showed 100% protection. The level of protection declined in mice that were immunized with AltaStaph supplemented with either 2 mg or 1 mg toxoid IgG. The survival rate for 2 mg total IgG dose was 90% while for 1 mg dose was 60% after five days of challenge. In contrast, non-supplemented AltaStaph had 30% survival, while no protection observed with toxoid IgG. MEP IgG V. MECHANISM OF ACTION - Vaccine. USE - The compositions and methods are useful for treating...

... S. aureus. ADMINISTRATION - Dosage of IVIg composition is 50-1000 mg/kg and dosage of monoclonal antibody composition is 5-25 mg/kg. Administration can be through intramuscular, subcutaneous, intravenous, or intracutaneous...

DESCRIPTIONS: type 5 antigen, 336 antigen, alpha-toxin antigen, leukocidin

10601171monoclonal.txt  
antigen-specific monoclonal antibody, appl. vaccine,  
methicillin resistant Staphylococcus aureus infection prevention,  
immunotherapy bacterium therapy (27, 07)  
... SECTION: DI SEASE-Infectious Disease (non-viral); PHARMACEUTICALS-  
Antibodies

20/3, K/19 (Item 2 from file: 357)  
DIALOG(R) File 357: Derwent Biotech Res.  
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0324373 DBR Accession No.: 2003-25514 PATENT  
Composition comprising monoclonal antibody that specifically  
binds to the staphylococcal antigen, useful for blocking and  
alleviating staphylococcal nasal colonization - Staphylococcus  
aureus-specific chimeric antibody and humanized antibody  
production  
AUTHOR: KOKAI-KUN J F; MOND J J; FISCHER G W STINSON J R; WALSH S M  
LEES A  
PATENT ASSIGNEE: BIOSYNEXUS INC 2003  
PATENT NUMBER: WO 200363772 PATENT DATE: 20030807 WPI ACCESSION NO.:  
2003-721613 (200368)  
PRIORITY APPLIC. NO.: US 341806 APPLIC. DATE: 20011221  
NATIONAL APPLIC. NO.: WO 2002US40925 APPLIC. DATE: 20021223  
LANGUAGE: English

Composition comprising monoclonal antibody that specifically  
binds to the staphylococcal antigen, useful for blocking and  
alleviating staphylococcal nasal colonization - Staphylococcus  
aureus-specific chimeric antibody and humanized antibody  
production

ABSTRACT: DERIVATIVE ABSTRACT: NOVELTY - A composition (I) comprising at least  
one monoclonal antibody (Mab) that specifically binds at  
least one antigen of Staphylococci and a mucoadhesive carrier. DETAILED  
DESCRIPTION - A composition (I) comprising at least one  
monoclonal antibody (Mab) that specifically binds at least  
one antigen of Staphylococci and a mucoadhesive carrier. The...

... or 99-110FC12 IE4. The Mab comprises a human heavy chain constant region  
chosen from IgG, IgA and IgM preferably IgG1 human heavy chain  
constant region. The Mab comprises a fully...

... scFv. The Mab specifically binds to a staphylococcal surface antigen  
(virulence antigens and adherence antigens), lipoteichoic acid  
(LTA), or peptidoglycan. (I) comprises a multiplicity of Mabs having  
non-identical amino acid...

... colonization. The Mabs work independently of the normal supportive  
mechanisms in immune response that enhance antibody activity  
against a pathogen. (74 pages)

DESCRIPTORS: Staphylococcus aureus antigen-specific chimeric antibody  
humanized antibody, monoclonal antibody prep.,  
liposome, appl. nasal colonization alleviation, bacterium infection  
disease therapy bacterium antibody engineering  
(22, 45)

SECTION: PHARMACEUTICALS- Antibodies-

20/3, K/20 (Item 3 from file: 357)  
DIALOG(R) File 357: Derwent Biotech Res.  
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0322152 DBR Accession No.: 2003-23292 PATENT  
Page 30

Monoclonal antibody with binding specificity for lipoteichoic acid, useful for the treatment of infection caused by gram-positive bacteria e.g. Staphylococcus aureus - for use in Staphylococcus epidermidis and Staphylococcus aureus infection diagnosis and therapy

AUTHOR: STINSON J R; SCHUMAN R F; MOND J J; LEES A; FISCHER G W

PATENT ASSIGNEE: BIOSYNEXUS INC 2003

PATENT NUMBER: WO 200359260 PATENT DATE: 20030724 WPI ACCESSION NO.:

2003-646000 (200361)

PRIORITY APPLIC. NO.: US 343503 APPLIC. DATE: 20011221

NATIONAL APPLIC. NO.: WO 2002US41033 APPLIC. DATE: 20021223

LANGUAGE: English

Monoclonal antibody with binding specificity for lipoteichoic acid, useful for the treatment of infection caused by gram-positive bacteria e.g. Staphylococcus...

ABSTRACT: DERVENT ABSTRACT: NOVELTY - A monoclonal antibody comprising at least one light chain (A1) and at least one heavy chain (B1) binds specifically to lipoteichoic acid (LTA). (A1) and (B1) comprise polypeptides (P1) and (P2) having amino acid sequences with...

...a3) and to heavy chain variable regions (b1), (b2) or (b3) respectively. DETAILED DESCRIPTION - The monoclonal antibody (Mab) comprising at least one light chain (A1) and at least one heavy chain (B1) binds specifically to lipoteichoic acid (LTA). (A1) and (B1) comprise polypeptides (P1) and (P2) having amino acid sequences with...

...at least one of LTA or a peptide mimotope of LTA that induces anti-LTA antibodies; (b) determining the polypeptide sequence of the light chain variable region of at least one...

... region; and (12) a collection of MAbs that bind to LTA comprising MAbs. BIOTECHNOLOGY - Preferred Antibodies: The amino acid sequence identity of (A1) and (B1) in Mab is at least 80...

... The Mab comprises a heavy chain constant region. The heavy chain constant region comprises human IgG, IgA, IgM or IgD sequence. The Mab comprises a Fab, Fab', F(ab')<sub>2</sub>, Fv...

... or as a framework region or its portion respectively. ACTIVITY - Antibacterial. The antibacterial activity of monoclonal antibodies raised in mice against Staphylococcus aureus lipoteichoic acid (LTA). The hybridoma subclone 00-107GG12 ID12 produced IgG-2a monoclonal antibody with a kappa light chain (M20) were tested in an opsonophagocytic assay for opsonic activity...

... with polymorphonuclear neutrophils (PMNs) and complement depleted of anti-S. aureus and anti-S. epidermidis antibodies, and then tested for antibacterial activity against the bacteria. M20 (200 mcg/ml) showed opsonic...

... catheters, cardiac valves, cerebrospinal fluid shunts, joint prostheses, other implants). No dosage given. ADVANTAGE - The monoclonal antibodies are broadly reactive and opsonic for Staphylococcus epidermidis and S. aureus. The antibodies bind to the lipoteichoic acid on the bacteria hence prevent the subsequent invasion by the bacteria; enhance bacterial opsonization, phagocytosis and the clearance from the tissue and/or blood. The antibodies are effective against the antibiotic resistant bacteria and eliminate the development of anti-murine antibodies. EXAMPLE - No relevant example given. (48 pages)

DESCRIPTORS: monoclonal antibody, humanized antibody prep., isol., expression in hybridoma, appl. Staphylococcus

10601171monoclonal.txt  
epidermidis, Staphyococcus aureus infection diagnosis, therapy  
antibody engineering cell culture bacterium (22, 40)  
SECTION: PHARMACEUTICALS-Antibodies...

... DIAGNOSTICS-Antibody-Based Diagnostics

20/3, K/21 (Item 4 from file: 357)  
DIALOG R File 357: Derwent Biotech Res.  
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0005486 DBR Accession No.: 82-04486  
Monoclonal antibodies that specifically recognize the  
polyglycerol phosphate backbone and sugar substituents on  
lipoteichoic acid (LTA) - hybridoma construction using spleen  
cells of mice immunized with killed Streptococcus mutans or Strept.  
faecium with myeloma SP2/0 cells and monoclonal antibody  
preparation (conference abstract)  
AUTHOR: Jackson D; Wong W; Shockman G D  
CORPORATE SOURCE: Temple Univ. Sch. Med., Philadelphia, PA, USA.  
JOURNAL: Abstr. Annu. Meet. Am Soc. Microbiol. (81 Meet., 144) 1982  
CODEN: 0005M  
LANGUAGE: English

Monoclonal antibodies that specifically recognize the  
polyglycerol phosphate backbone and sugar substituents on  
lipoteichoic acid (LTA) ... mice immunized with killed  
Streptococcus mutans or Strept. faecium with myeloma SP2/0 cells and  
monoclonal antibody preparation (conference abstract)  
... ABSTRACT: fusion with myeloma cell line SP2/0. Doubly cloned cell line  
8A1D1A5 produced an IgM monoclonal antibody (Mab) that  
agglutinated erythrocytes sensitized with either substituted or  
unsubstituted LTAs, at nearly equivalent titres...

... is directed against the polyglycerol phosphate backbone of LTA. Cell  
line 6D10G4G6 produced an MAb (IgG) that failed to agglutinate  
erythrocytes sensitized with unsubstituted LTA, but agglutinates  
erythrocytes sensitized with kojibiose...

DESCRIPTORS: monoclonal antibody prep., lipoteichoic acid  
Strept. mutans, Strept. faecium hybridoma construction

20/3, K/22 (Item 1 from file: 457)  
DIALOG R File 457: The Lancet  
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0000162020

\*\*USE FORMAT 7 OR 9 FOR FULL TEXT\*\*

New drugs for exacerbations of chronic obstructive pulmonary disease  
Hansel, Trevor T; Barnes, Peter J  
The Lancet vol. 374, 9691 PP: 744-55 Aug 29-Sep 4, 2009  
DOCUMENT TYPE: PERIODICAL; Feature; Journal Article LANGUAGE: English  
RECORD TYPE: New; Fulltext  
LENGTH: 12 Pages  
WORD COUNT: 8810

TEXT:

... been postulated to be a disease with autoimmune components, 44 such  
as circulating pulmonary epithelial IgG autoantibodies 45 and  
anti-elastin autoimmune factors. 46 Inflammation in COPD might also be  
regarded as autoinflammatory... EGF receptor. 90, 91 Treatment of respiratory  
syncytial virus infection remains largely supportive, but the  
monoclonal antibody palivizumab against the viral F protein is



10601171monoclonal.txt

licensed for specialist use in restricted circumstances.92...an acute exacerbation might be effective since TNF $\alpha$  concentration increases during exacerbations. However, the TNF antibody infliximab increased the occurrence of respiratory cancers in patients with COPD,125 and increased other...

...TNF $\alpha$  treatment could have substantial implications for other anti-inflammatory treatment for exacerbations of COPD.

Monoclonal antibodies against interleukins 6, 1 $\alpha$ , and 17, TGF $\alpha$ , and GM-CSF could be useful for COPD...

...to Pseudomonas endotoxins.129 Hence, tobacco smoke might cause defective anti-bacterial responses. Tocilizumab, a monoclonal antibody that targets interleukin-6 receptors, is effective in several inflammatory diseases,130 but studies in...

SI DEBAR:

CITED REFERENCES:

...31.

71 Hoogerwerf JJ, de Vos AF, Bresser P, et al. Lung inflammation induced by lipoteichoic acid or lipopolysaccharide in humans. Am J Respir Crit Care Med 2008; 178: 34-41...43.

103 Presicce P, Giannelli S, Taddeo A, Villa ML, Della BS. Human defensins activate monocyte-derived dendritic cells, promote the production of proinflammatory cytokines, and up-regulate the surface expression...

THIS IS THE FULL-TEXT.

20/3, K/23 (Item 2 from file: 457)

DIALOG(R) File 457: The Lancet

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0000153064

\*\*USE FORMAT 7 OR 9 FOR FULL TEXT\*\*

Neutrophils in development of multiple organ failure in sepsis

Brown, K A; Brain, S D; Pearson, J D; Edgeworth, J D; Et al

The Lancet vol. 368, 9530 PP: 157-69 Jul 8-Jul 14, 2006

DOCUMENT TYPE: PERI ODICAL; Feature; Journal Article LANGUAGE: English

RECORD TYPE: New; Fulltext

LENGTH: 13 Pages

WORD COUNT: 12056

TEXT:

...their binding to endothelial cells. From work in our laboratory, which finds that anti-CD11b antibodies are not very effective at inhibiting the interaction of neutrophils from patients with sepsis to endothelial monolayers, it seems that other surface determinants could also contribute to the supranormal adhesiveness of neutrophils in sepsis.32

The beta1 integrins are mainly associated with lymphocytes and monocytes," but one member, VLA-4 (CD49d), was recently identified on approximately 30% of neutrophils from...

...is generally agreed to be due to the activity of circulating factors that include lipopolysaccharide, lipoteichoic acid, and pro-inflammatory cytokines45,102-105 although binding to endothelium that is activated by...

...the blood concentration of which is frequently increased in sepsis,111 inhibits migration across endothelial monolayers112 whereas the intravenous administration of interleukin 8 to ...the cells.

Neutrophil binding of bacteria is greatly augmented when the pathogens are coated with IgG. The high affinity receptor for IgG is CD64, which is absent from resting neutrophils and is considered to be a marker

...most neutrophils that bind to cultured endothelium an interaction that is impeded by anti-CD64 antibodies.123 Binding to bacteria also occurs via CD14, the receptor for lipopolysaccharide that is present on all monocytes. This receptor is weakly expressed on neutrophils124 but becomes upregulated in response to bacterial infections...

...and CD16 and CD32, which like CD64 also bind the Fc sites (tail regions) of IgG. All of these receptors are adequately expressed on neutrophils from patients with sepsis.

The Toll...

...TLR2(130) and TLR4 agonists could directly delay neutrophil apoptosis, but indirect effects mediated via monocytes and macrophages could be more important for extended neutrophil survival.129 Although activation of TLR2...

...implicated in experimentally induced sepsis, but conclusions so far have yet to have clinical effect. Antibodies against TNFalpha and interferon gamma protect baboons138 and mice139 against bacterial insult, whereas antagonising of... Similar approaches have not been undertaken in the clinical setting but use of anti-CD18 antibodies for patients with traumatic shock162 or with myocardial infarction163 have been disappointing, possibly because of...

...disrupting the adhesion of neutrophils already sequestered in the microvasculature, as shown by anti-integrin antibodies dislodging neutrophils bound to endothelium165 or the prevention of additional binding interactions that exacerbate... increase the risk of mortality in patients with sepsis. Since polymorphisms in Fc receptors for IgG seem to be associated with meningococcal disease outcome,168 a similar association might exist between sepsis and CD64, the high-affinity IgG receptor whose expression is upregulated on neutrophils from patients with sepsis84 and that is associated...

SI DEBAR:

CAPTIONS:

...eg, interleukin 1, TNFalpha, G-CSF, C5a, nitric oxide) or bacterial products (eg, lipopolysaccharide or lipoteichoic acid), surface integrins and CD64 (high-affinity Fc receptor that binds monomeric IgG) are upregulated to promote firm endothelial adhesion to postcapillary venules. However, some of these factors...

CITED REFERENCES:

...cells in the pathogenesis of vascular damage. In: Cervera R, Khamashta MA, Hughes GRV, eds. Antibodies to endothelial cells and vascular damage. Boca Raton, FL, USA: CRC Press, 1994: 27-46...

...parvulin-primed and lipopolysaccharide-induced hepatic necrosis in rats by selective depletion of neutrophils using monoclonal antibody  
J Leukoc Biol 1993; 53: 144-50.

36 Yamano M, Ureda M, Miyata K, Yamada...82 Stubner G, Siedler H. Phagocytosis by neutrophilic granulocytes of intensive care patients: effect of immunoglobulin preparations. Immun Infekt 1984; 12: 69-72.

83 Ahmed NA, McGill S, Yei J, Hu...

...1984; 160: 1656-71.

99 Daniels RH, Finnen MJ, Hill ME, Lackie JM. Recombinant human monocyte 1L-8 primes NADPH-oxidase and phospholipase A sub 2 activation in human neutrophils. Immunology 74: 64-70.

103 Lotz S, Aga E, Wilde L, et al. Highly purified lipoteichoic acid activates neutrophil granulocytes and delays their spontaneous apoptosis via CD14 and TLR2. J Leukoc...

...2003; 170: 5268-75.

130 Lotz S, Aga E, Wilde I, et al. Highly purified lipoteichoic acid activates neutrophil granulocytes and delays their spontaneous apoptosis via CD14 and TLR2. J Leukoc...inflammatory responses can be triggered by TRIM-1, a novel receptor expressed on neutrophils and monocytes. J Immunol 2000; 164: 4991-95.

137 Gbot S, Gravoisy AA, Kolopp-Sarda M-N...

...792-96.

138 Schlag G, Redl H, Davies J, Haller I. Anti-tumour necrosis factor antibody treatment of recurrent bacteremia in a baboon model. Shock 1994; 2: 10-17

139 Doherty...

...1666-70.

140 Abraham E, Wunderink R, Silverman H, et al. Efficacy and safety of monoclonal antibody to human tumour necrosis factor alpha in patients with sepsis syndrome. JAMA 1995; 273: 934-41.

141 Cohen J, Carlet J. INTERSEPT: An international multicentre, placebo-controlled trial of monoclonal antibody to human tumour necrosis factor-alpha in patients with sepsis. International Sepsis Trial Study Group...

20/3, K/24 (Item 3 from file: 457)

DIALOG R File 457: The Lancet

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0000152069

\*\*USE FORMAT 7 OR 9 FOR FULL TEXT\*\*

Laboratory diagnosis of invasive aspergillosis

Hope, W W, Walsh, T J; Denning, D W

The Lancet Infectious Diseases vol. 5, 10 PP: 609-622 Oct 2005

DOCUMENT TYPE: PERIODICAL; General Information LANGUAGE: English

RECORD TYPE: New; Fulltext

LENGTH: 14 Pages

WORD COUNT: 10436

TEXT:

...techniques. The detection of metabolites produced by *Aspergillus* spp and a range of aspergillus-specific antibodies represent additional, but relatively underused, diagnostic avenues. The detection of galactomannan has been incorporated into immunofluorescence, and in-situ hybridisation

Immunohistochemistry (using the monoclonal antibody WF-AF-117 or EB-A18,19), immunofluorescence,20 and insitu hybridisation21,22 have been...

...scant, and is likely to remain that way.38

Galactomannan assays use EB-A2, a monoclonal antibody derived from rats, which is directed towards the B (1,5)-linked galactofuranoside side-chain residues of the galactomannan molecule.39 Four or more epitopes are required for antibody binding.3139 Detection is achieved using a sandwich ELISA format, which is made possible by...

...assay is dependent on a pretreatment step, the goal of which is to remove complexing antibody that may block EB-A2 binding. However, the acid-sensitive galactofuranoside residues may be degraded...1,3)-beta-D glucan results have been documented in haemodialysis, cardiopulmonary bypass, treatment with immunoglobulin products, and exposure to glucan-containing gauze (eg, following major surgery).69 Environmental (1,3)-beta-D glucan contamination may also compromise specificity.

Antibodies directed toward *Aspergillus* spp

The demonstration of specific antibody is required to establish the diagnosis of chronic pulmonary aspergillosis.<sup>69</sup> Traditionally, antibody detection has not been considered useful for the diagnosis of acute invasive aspergillosis, following an early study that failed to document antibody formation in 15 patients with invasive aspergillosis.<sup>70</sup> Subsequently, antibody has been documented in approximately one-third of patients with invasive aspergillosis.<sup>47,71</sup> The detection of antibody may prove to be the best non-invasive means of establishing the diagnosis of subacute...

...case report describing invasive pulmonary aspergillosis in an individual with chronic granulomatous disease.<sup>72</sup> Furthermore, antibody detection could be useful as a means of establishing a retrospective diagnosis of invasive aspergillosis...

...have undergone immunological reconstitution, although more work is required in this regard.

The detection of antibody

Many assay formats have been used to detect antibodies to *Aspergillus* spp, including immunodiffusion, counter immunoelectrophoresis, complement fixation, particle agglutination, indirect-immunofluorescence, radioimmunoassay, and ELISA...

SI DEBAR:

...literature using the following terms: "Aspergillus", "aspergillosis", "diagnosis", "fungus", "fungal", "culture", "histology", "galactomannan", "glucan", "serology", "antibody", "PCR", "molecular", "metabolite", "mannitol", and "gliotoxin". Further relevant references, not identified by this strategy, were...

CITED REFERENCES:

...Kraft DE. Immunohistologic identification of *Aspergillus* spp. and other hyaline fungi by using polyclonal fluorescent antibodies. *J Clin Microbiol* 1997; 35: 2206-09.

19 Verweij PE, Smeets F, Poot T, Bult...45 Mennink-Kersten MA, Klont RR, Warris A, Op den Camp HJ, Verweij PE. Bifidobacterium lipoteichoic acid and false ELISA reactivity in aspergillus antigen detection. *Lancet* 2004; 363: 325-27.

46...37 (suppl 3): S265-80.

70 Young RC, Bennett JE. Invasive aspergillosis. Absence of detectable antibody response. *Am Rev Respir Dis* 1971; 104: 710-16.

71 Chan CM, Woo PC, Leung AS, et al. Detection of antibodies specific to an antigenic cell wall galactomannoprotein for serodiagnosis of *Aspergillus fumigatus* aspergillosis. *J Clin...*

...2003; 22: 681-85.

73 Kappe R, Schulze-Berge A, Sonntag HG. Evaluation of eight antibody tests and one antigen test for the diagnosis of invasive aspergillosis. *Mycoses* 1996; 39: 13...

...JM, do Carrno JA, Abecasis M, Casimiro C, Exposto F. Follow-up of anti-*Aspergillus* IgG and IgA antibodies in bone marrow transplanted patients with invasive aspergillosis. *J Clin Lab Anal* 2002; 16: 156-62.

76 Holdom MD, Lechenne B, Hay RJ, Hamilton AJ, Monod M. Production and characterization of recombinant *Aspergillus fumigatus* Cu, Zn superoxide dismutase and its recognition...

THIS IS THE FULL-TEXT.

20/3, K/25 (Item 4 from file: 457)

DIALOG R File 457: The Lancet

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0000145916

Radiolabelled antimicrobial peptides for infection detection  
 Lupetti, Antonella; Welling, Mck M; Pauwels, Ernest K J; Nibbering, Peter H  
 The Lancet Infectious Diseases vol. 3, 4 PP: 223-229 Apr 2003  
 DOCUMENT TYPE: PERIODICAL; General Information LANGUAGE: English  
 RECORD TYPE: New; Fulltext  
 LENGTH: 7 Pages  
 WORD COUNT: 5208

## TEXT:

...Other agents interact with receptors or domains on infiltrating leucocytes, such as 99mTc-labelled antigranulocyte monoclonal antibodies (or fragments thereof) and 99mTc-labelled chemotactic peptides and interleukins.<sup>6</sup> Since antimicrobial peptides often... CD8+ T cells, naive CD4+ T cells, and immature dendritic cells, and beta-defensins recruit monocytes and immature dendritic cells and promote dendritic cell maturation,<sup>25</sup> and chemottract memory T cells...

...negatively charged) surface of microorganisms.<sup>9</sup> Microbial membranes expose negatively charged phospholipids-eg, lipopolysaccharide or teichoic acids-on their surface, while mammalian cells segregate into the inner leaflet the lipids with...

...bacterial surface by esterification of phosphatidylglycerol, the major phospholipid of Staphylococcus aureus, or of the teichoic acid polymers.<sup>33,34</sup> Also, inactivation of antimicrobial peptides by microbial serine proteases as well...g) or large amounts of heat-killed microorganisms.<sup>18</sup> h later 99mTc-peptides or 99mTc-immunoglobulin G (99mTc-IgG), used as a positive tracer for both infection and inflammation, were injected intravenously. Acquisition of...

...muscle in a rat. The quantification of the uptake characteristics of 99mTc-labelled peptides or 99mTc-IgG in infected or inflamed thigh muscles in mice is summarised in figure 4. In agreement...  
 SI DEBAR:

20/3, K/26 (Item 5 from file: 457)  
 DIALOG File 457: The Lancet  
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0000145913

Molecular basis of group A streptococcal virulence  
 Bisno, A L; Brito, M C; Collins, C M  
 The Lancet Infectious Diseases vol. 3, 4 PP: 191-200 Apr 2003  
 DOCUMENT TYPE: PERIODICAL; General Information LANGUAGE: English  
 RECORD TYPE: New; Fulltext  
 LENGTH: 10 Pages  
 WORD COUNT: 10354

## TEXT:

...<sup>13</sup> The degree of fibrinogen binding, however, varies greatly among different M serotypes.<sup>14</sup>

Opsonic antibodies directed against the variable portion of the M-protein molecule override the protective mechanisms described above by activating the classic complement pathway (figure 2). Such antibodies confer type-specific protective immunity. Thus, an individual who acquires antibodies to M type 1 may remain susceptible to other GAS types. Opsonic antibodies do not appear, however, after early and effective antimicrobial therapy.

Recent studies have suggested that....

...duplications of amino acids) in the hypervariable region, which allow these mutant daughter cells to avoid antibody recognition. Presumably, such size mutant bacteria might have a selective survival advantage once herd immunity...

...as members of the emm gene superfamily. A number of the M-like proteins bind IgG or IgA and seem to be cooperative with M protein in anti-phagocytic effect. 19, 20...

...that found in human connective tissue. For this reason it is a poor immunogen and antibodies to GAS hyaluronic acid have been quite difficult to demonstrate in people. Such antibodies have, however, been elicited in rabbits immunised with encapsulated GAS31 and in mice immunised with...

...least 17 adhesin candidates have been described, 34 but the most extensively studied have been lipoteichoic acid (LTA), M protein, and fibronectin binding proteins. LTA adheres to fibronectin on human buccal... such entry provides an intraepithelial sanctuary for persistence of the organism sheltered from phagocytes, humoral antibody, and antibiotics such as penicillin that do not readily cross eukaryotic cell membranes. Indeed, there...

...known. Its haemolytic activity is inhibited by serum lipoproteins and other phospholipids. No naturally occurring antibody to it has been detected that will neutralise its haemolytic activity, but synthetic peptides containing amino acid residues of the SLS molecule evoke toxin-neutralising antibodies. 76, 77 SLS shares with SLO the capacity to damage the membranes of polymorphonuclear leucocytes... peptidase, which specifically cleaves the human chemotaxis C5a at the PMN binding site. 78, 79 Antibodies to five of the extracellular products have been used in the serodiagnosis of streptococcal infection...

...and generating biologically active peptides such as interleukin-1, 95 kinins, 96 and histamine. 97 Antibodies to SpeB are present in human serum following GAS infection. Studies using genetic mutants clearly...

...proteinases, including C5A peptidase, and streptokinase, have recently been reviewed. 102, 103 Streptolysin Q, 104 lipoteichoic acid and peptidoglycan 105 may also stimulate elaboration of cytokines. Only a small fraction of patients...

...to infection outcome are under active investigation. Patients with invasive disease have lower concentrations of antibodies to both M protein and superantigen-neutralising antibodies than do controls. 106 There is a direct correlation between the intensity of inflammatory cytokine... molecules share a particular surface-exposed antigenic domain 133 against which ARF patients mount a strong IgG response. 134 They do not elaborate alpha-lipoproteinase (so-called serum opacity factor) and they... an obvious candidate because of the close association of nephritogenicity and the M serotype. Indeed, monoclonal antibodies raised against human glomeruli have been seen to cross-react with streptococcal M protein. 137 Moreover, in an animal model of nephritis induced by nephritogenic type 12 streptococci, antibodies eluted from the glomerulus were seen to be directed against type 12 M protein but...

...lesions in rhesus monkeys by immunisation with streptococcal membrane fragments or by intravenous injection of antibodies to these fragments. 139 Streptococcal pyrogenic exotoxin B (SpeB, streptococcal proteinase) was identified by immunofluorescence...

...the glomerulus only during the initial phase of APSGN reacts in direct immunofluorescence tests with antibodies present in convalescent sera

10601171monoclonal.txt  
of APSGN patients. 141 An apparently identical antigen, found in a...  
SI DEBAR:

...related protein (M<sub>p</sub>)  
Enn and others  
Hyaluronic acid capsule  
C5a peptidase  
Adherence to epithelial cells  
Lipoteichoic acid  
(oral epithelial cells)  
Fibronectin binding proteins  
(oral epithelial cells, cutaneous Langerhans cells)  
M protein...

CITED REFERENCES:

- ... Infect Dis 1992; 166: 374-82.  
31 Fillit HM, McCarty M, Blake M. Induction of antibodies to hyaluronic acid by immunization of rabbits with encapsulated streptococci. J Exp Med 1986; 164...  
... hyaluronate in mice: at least two different antigenic sites on hyaluronate are identified by mouse monoclonal antibodies. J Exp Med 1988; 168: 971-82.  
33 Cunningham MW. Pathogenesis of ... 35 Beachey EH, Simpson WA. The adherence of group A streptococci to oropharyngeal cells: the lipoteichoic acid adhesin and fibronectin receptor. Infection 1982; 10: 107-11.  
36 Czek I, Beachey EH, Jefferson W, Campbell GL. Cell membrane-binding properties of group A streptococcal lipoteichoic acid. J Exp Med 1975; 187: 1161-67.  
37 Dale JB, Baird RW, Courtney HS, Hasty DL, Bronze MS. Passive protection of mice against group A streptococcal pharyngeal infection by lipoteichoic acid. J Infect Dis 1994; 169: 319-23.  
38 Hasty DL, Czek I, Courtney HS. ... bacteria. Cell 2001; 104: 143-52.  
76 Dale JB, Chiang EY, Hasty DL, Courtney HS. Antibodies against a synthetic peptide of SAgA neutralize the cytolytic activity of streptolysin S from group... Stevens DL. Streptococcal toxic shock syndrome: synthesis of tumor necrosis factor and interleukin-1 by monocytes stimulated with pyrogenic exotoxin A and streptolysin Q. J Infect Dis 1992; 165: 879-85. ... Proc 1969; 1: 959-63.  
137 Goroncy-Bernes P, Dale JB, Beachey EH, Oferkuch W. Monoclonal antibody to human renal glomeruli cross-reacts with streptococcal M protein. Infect Immun 1987; 55: 2416-19.  
138 Lindberg LH, Vosti KL. Elution of glomerular bound antibodies in experimental streptococcal glomerulonephritis. Science 1969; 166: 1032-33.  
139 Markowitz AS, Horn D, Aseron...

THIS IS THE FULL-TEXT.

20/3, K/27 (Item 6 from file: 457)  
DIALCO(R) File 457: The Lancet  
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0000142142

\*\*USE FORMAT 7 OR 9 FOR FULL TEXT\*\*

Pathogenesis and pathophysiology of pneumococcal meningitis  
Koedel, Uwe; Scheld, William Michael; Pfister, Hans-Walter  
The Lancet Infectious Diseases vol. 2, 12 PP: 721-736 Dec 2002  
DOCUMENT TYPE: PERIODICAL; General Information LANGUAGE: English  
RECORD TYPE: New; Fulltext  
LENGTH: 16 Pages  
WORD COUNT: 13774

TEXT:

...pneumococcus.49 The IgA1 protease that inactivates the predominant human IgA species by cleaving the immunoglobulin molecule at the heavy-chain hinge region, may allow the pneumococcus to counter the host...

...necessary for bacteriaemic spread. The ability to invade correlates with the presence of the polymeric immunoglobulin receptor (pIgR) on the human cell surface and CbpA on the pneumococcus. The pIgR is important in host defence, transporting antibodies across mucosal epithelial cells.52 Recent work has shown that, using CbpA that binds directly... of changes in the composition of the capsule and the underlying cell wall components (eg, teichoic acid concentration) rather than in the thickness of the capsule.57 In addition to the...

...properties, it is capable of activating the classic complement pathway in the absence of specific antibodies, with a concomitant reduction of serum opsonic activity.62 This activation is mediated by the capacity of pneumolysin to bind the Fc region of IgG.63

The relative contributions of the various putative virulence proteins such as pneumolysin, CbpA, NanA...the primary site of pneumococcal entry into the CSF.

How can a pathogen cross a monolayer of endothelial (or epithelial) cells expressing tight junctions? The pathogen can use several strategies including...

...vacuole and transmigration through the cell. Only transparent pneumococci seem able to transcytose through endothelial monolayers in a significant proportion.81

The morphological phenotypes termed opaque and transparent because of their...

...interact with the host.84 In S pneumoniae, the transparent variants produce increased amounts of teichoic acid and CbpA, whereas the opaque variant is associated with larger amounts of capsular polysaccharide...

...to achieve opsonic activity.85 The concentrations of the other major bacterial opsonin, specific capsular antibody, are also low in normal CSF with a blood/CSF IgG ratio of about 800/1. Although CSF IgG concentrations increase in the presence of bacterial meningitis, they likewise remain below concentrations optimal for...

...susceptibility to invasive disease (versus symptomless nasopharyngeal carriage). These factors include lack of pathogen-specific antibodies,88 the absence of non-specific opsonins (complement deficiencies; homozygous for mannose-binding lectin codon...Activation of LytA and autolysis results in the release of subcapsular bacterial components including peptidoglycan, lipoteichoic acid, pneumolysin, and bacterial DNA.

Mechanisms of immune activation in bacterial meningitis  
Cell-wall products...

...be reproduced by intracisternal challenge with whole, heat-killed unencapsulated strains, their isolated cell walls, lipoteichoic acid, or peptidoglycan, but not by heat-killed encapsulated strains or isolated capsular polysaccharide.101...

...first step in immune activation is thought to be the binding of peptidoglycan (and/or lipoteichoic acid) to the pattern recognition receptor membrane CD14 (mCD14).102 However, mCD14 is a glycosylphosphatidylinositol-linked...

...have substantial immune stimulatory effects on B cells, natural killer (NK) cells, dendritic cells, and monocytes/macrophages.110,111 This



activity of bacterial DNA is due to the presence of unmethylated...  
 Spellerberg et al 122 showed that pneumococci activate NF-kappaB in undifferentiated human and mature murine monocytes. The signalling pathways involved in immune activation during acute bacterial meningitis are only just beginning...

...as IL8 and growth-related protein (Gro)alpha are effective chemottractants for neutrophils but not monocytes. By contrast, non-ELR-CXC chemokines (for example, interferon gamma-inducible 10 kDa protein) and CC chemokines (for example, monocyte chemoattractant protein (MCP) 1, MIP1alpha, and MIP1beta) are poor chemottractants for neutrophils but attract monocytes and lymphocytes. In human beings, highly raised concentrations of the chemokines IL8, Groalpha, MCP1, MIP1alpha...

...an in-vitro chemotaxis assay, the CSF of bacterial meningitis was chemotactic for neutrophils and mononuclear leucocytes. A significant reduction of neutrophil chemotaxis was obtained by IL8 and Groalpha antibodies, and a reduction of mononuclear-cell migration was achieved by a combination of MCP1, MIP1alpha, and MIP1beta antibodies. 140 In a mouse model of pneumococcal meningitis, the brain mRNA and protein expression of...space.144 Furthermore, the influx of neutrophils during experimental bacterial meningitis was radically attenuated by antibodies directed against the adhesion molecules Mac1 or ICAM1. 145-147 Both antileucocyte- endothelial interaction strategies...

SI DEBAR:

#### CITED REFERENCES:

- ...J Clin Invest 1999; 104: 1139-47.
- 51 Reinholdt J, Kilian M. Comparative analysis of immunoglobulin A1 protease activity among bacteria representing different genera, species, and strains. Infect Immun 1997; 65...
- ...2001; 11: R35-38.
- 53 Zhang JR, Mostov KE, Lamm ME, et al. The polymeric immunoglobulin receptor translocates pneumococci across human nasopharyngeal epithelial cells. Cell 2000; 102: 827-37.
- 54 Li...
- ...Kim JQ, Weiser JN. Association of intrastain phase variation in quantity of capsular polysaccharide and teichoic acid with the virulence of *Streptococcus pneumoniae*. J Infect Dis 1998; 177: 368-77.
- 58...Mitchell TJ. Pneumolysin stimulates production of tumor necrosis factor alpha and interleukin-1beta by human mononuclear phagocytes. Infect Immun 1994; 62: 1501-03.
- 107 Braun JS, Novak R, Gao G, Murray...
- ...5: 439-47.
- 118 Guha M, Mackman N. LPS induction of gene expression in human monocytes. Cell Signal 2001; 13: 85-94.
- 119 Dziarski R, Jin YP, Gupta D, ...Rosenow C, Sha W, Tuomanen EI. Pneumococcal cell wall activates NF-kappa B in human monocytes: aspects distinct from endotoxin. Microb Pathog 1996; 20: 309-17.
- 123 Koedel U, Bayerlein L...
- ...cerebrospinal fluid in bacterial meningitis and mediate chemotactic activity on peripheral blood-derived polymorphonuclear and mononuclear cells in vitro. J Immunol 1997; 158: 1956-64.
- 141 Kubes P, Ward PA. Leukocyte...
- ...SD. Reduction of inflammation, tissue damage, and mortality in bacterial meningitis in rabbits treated with monoclonal antibodies against adhesion-promoting receptors of leucocytes. J Exp Med 1989; 170: 959-69.

146 Saez...

...al. Enhanced attenuation of meningeal inflammation and brain edema by concomitant administration of anti-CD18 monoclonal antibodies and dexamethasone in experimental Haemophilus meningitis. J Clin Invest 1991; 88: 2003-11.

147 Weber JR, Angstwurm K, Burger W, Einhaupl KM, Dirnagl U. Anti ICAM-1 (CD 54) monoclonal antibody reduces inflammatory changes in experimental bacterial meningitis. J Neuroimmunol 1995; 63: 63-68.

148 Nussler...

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20/3, K/28 (Item 7 from file: 457)  
 DI ALCG RJ File 457: The Lancet  
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0000141152

\*\*USE FORMAT 7 OR 9 FOR FULL TEXT\*\*

Correspondence

Anonymous

The Lancet vol. 360, 9349 PP: 1971 Dec 14, 2002 DOCUMENT TYPE:

PERIODICAL LANGUAGE: English RECORD TYPE: New, Fulltext

LENGTH: 20 Pages

WORD COUNT: 22418

TEXT:

...5 National health policy, policy statement document, final draft.

Afghanistan: Ministry of Public Health, 2002.

Antibody response to Staphylococcal slime and lipoteichoic acid

Sir-Laura Selan and colleagues (June 22, p 2166) describe the exploitation of the antibody response to staphylococcal slime polysaccharide in the diagnosis of vascular graft infection. We have similar experience in measuring the antibody response to exocellular antigens produced by Staphylococcus epidermidis and have identified one particular highly immunogenic...

...lipid S.2

This antigen is a short-chain-length exocellular form of the cellular lipoteichoic acid produced by a wide range of gram-positive cocci. We have shown that most of the population have a background serum concentration of IgG directed towards lipid S but that the concentrations rise substantially during serious infection by gram-positive...

...levels to S epidermidis slime antigen were significantly raised compared with those in controls, whereas IgG concentrations were high in patients and controls. The antigen used by Selan and colleagues probably...

...characteristic electrophoretic mobility on SDS-PAGE and can be detected by antisera and commercially-available monoclonal antibodies directed against the glycerolphosphate chain of lipoteichoic acid on western blotting. We have also shown that lipid S can induce the inflammatory response associated with gram-positive sepsis; consequently, neutralisation of antibodies directed towards them could play an important part in lessening the inflammatory response associated with...

...positive infection. There may be a beneficial role for vaccination or passive treatment with such antibodies.5

\*Tom Elliott, Tony Worthington, Peter Lambert

\*Department of Clinical Microbiology, University Hospital, Edgbaston, Birmingham graft infections with antibodies against staphylococcal slime antigens. Lancet 2002; 359: 2166-68.

...potential for detecting infection of grafts. Other workers have emphasised the diagnostic usefulness of the antibody titre for specific bacterial virulence factors.<sup>2</sup>

We analysed antibody reactivity to *Staphylococcus aureus* recombinant adhesins that recognise matrix molecules in blood collected from convalescent...

...a surface-associated protein capable of binding several extracellular matrix glycoproteins.<sup>3</sup>

The reactivity of IgG isolated from ten patients with *S. aureus*-induced endocarditis to these proteins was measured by ELISA and compared with the antibody concentrations of five healthy adults or three patients with infective endocarditis caused by unrelated bacterial...

...cut-off, 0.250 optical density (OD) at 490 nm. In patients with staphylococcal endocarditis, antibody concentrations to MAP ( $\geq 1.6$  OD) largely exceeded the cut-off limit, and nine of ten patients exhibited a notable rise in their antibody titre to clumping factor B ( $\geq 1.2$  OD). High IgG reactivity with clumping factor A ( $\geq 1.5$  OD) was seen in six of ten patients, whereas antibody response to fibronectin-binding protein A ( $\geq 0.8$  OD) seemed to be present in all patients.

When the IgG panel was assessed for reactivity to CNA, only two patients were positive with high-titre...

...detectable amounts of cell-wall-associated CNA were seen in only two isolates, perfectly matching IgG antiadhesin profiles.

This finding provides indirect evidence to support the notion that clumping factors and...

...binding protein A are critical factors in inducing *S. aureus* endocarditis and suggests that high IgG titres to MAP, clumping factors A and B, and fibronectin-binding protein A are associated with the disease state and may be useful in identifying staphylococcal endocarditis. No IgG preparation inhibited the binding of fibronectin to isolated fibronectin-binding protein A or to intact...

...1 Selan L, Passariello C, Rizzo L, et al. Diagnosis of vascular graft infections with antibodies against staphylococcal slime antigens. *Lancet* 2002; 359: 2166-68.

2 Colque-Navarro P, Palma M, Soderquist B, Flock J-1, Mollby R. Antibody responses in patients with staphylococcal septicemia against two *Staphylococcus aureus* fibrinogen-binding proteins: clumping factor... the confidentiality of HIV-infected persons.

The blood supply in Singapore undergoes rigorous testing for antibodies to hepatitis B virus, hepatitis C virus, and HIV using the most advanced technology available...

...to developing donor deferral criteria, particularly for HIV-infected donors in preseroconversion windows with negative antibody tests. Indeed, a study involving the Communicable Disease Centre, Singapore General Hospital, and the Singapore...response to this parasite. One study<sup>2</sup> indicated that this response, and not that of specific antibody, may be central to protecting people when they are first exposed to this parasite. Vaccination...doses, and in four of 650 cancer patients.<sup>2</sup> Three individuals were found to have antibodies to PEG-rHMGDF that cross-reacted with endogenous thrombopoietin and neutralised its biological activity. This...

...effect has also been reported in patients treated by erythropoietin who had developed anti-erythropoietin antibodies.<sup>3</sup>

10601171monoclonal.txt

Patients undergoing the type of treatment Vadhav-Raj and colleagues describe should be screened for antibodies to thrombopoietin to try to better delineate the risks involved in such treatment.

Jean-Luc...

...2 Li J, Yang C, Xia Y, et al. Thrombocytopenia caused by the development of antibodies to thrombopoietin. Blood 2001; 98: 3241-48.

3 Casadevall N, Nataf J, Viron B, et al. Pure red-cell aplasia and antierythropoietin antibodies in patients treated with recombinant erythropoietin. N Engl J Med 2002; 346: 469-75.

Sir...platelet donors. Blood 2001;98: 1339-45.

Authors' reply

Sir-We are aware that neutralising antibodies resulting in severe thrombocytopenia have been seen in some of the patients and normal donors who received Peg-rhMGDF. No such neutralising antibodies to recombinant human thrombopoietin were seen in our trial. Moreover, none of the 229 patients...

...For example, female patients with a history of previous pregnancies, if found positive for lymphocytotoxic antibodies, may benefit from autologous donation before administration of intensive chemotherapy. In the TRAP trial, the patients with detectable lymphocytotoxic antibodies did not benefit from leucocyte-reduced or ultraviolet-B-irradiated platelets.4 In our trial...

SI DEBAR:

20/3, K/29 (Item 8 from file: 457)

DIALOG(R) File 457: The Lancet

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0000101644

\*\*USE FORMAT 7 OR 9 FOR FULL TEXT\*\*

Rheumatic fever

Gene H Stollerman

The Lancet vol. 349, 9056 PP: 935-42 Mar 29, 1997 DOCUMENT TYPE:

PERIODICAL; Feature; JOURNAL ARTICLE; Journal Article LANGUAGE:

English RECORD TYPE: New; Fulltext

LENGTH: 8 Pages

WORD COUNT: 7069

TEXT:

...it may no longer be possible to detect direct evidence of previous streptococcal infection because antibody titres may have decreased, throat cultures may have become negative, and the minor signs of...

...sign to appear after the antecedent infection with group-A streptococci, can occur when streptococcal antibody concentrations have returned to normal and other evidence of rheumatic inflammation is no longer present...

...of rheumatic fever generally occurs early in the rheumatic attack, at a time when streptococcal antibodies are at their peak concentration, the absence of any substantial increase in the concentrations of these antibodies (eg, antistreptolysin O and anti-DNase B), are useful negative predictors of rheumatic fever. However, when concentrations of such antibodies increase, the diagnosis of rheumatic fever is only presumptive. Increased concentrations of streptococcal antibodies may be caused by a recent coincidental, but unrelated, streptococcal throat infection. The subsequent course...school children with pharyngitis associated with positive cultures for group-A streptococci and with increased streptococcal antibodies, do not develop rheumatic fever. Compared with the patients in military epidemics, these common infections...very short chains in broth cultures. After untreated pharyngitis,

10601171monoclonal.txt

rheumatogenic strains strongly induce type-specific antibodies.  
Rheumatogenic strains cannot produce lipoprotein lipase, the opacity factor, that is characteristic of skin strains...

...group-A streptococci. 20 Patients with rheumatic fever have higher than normal serum concentrations of IgG directed towards the class-I-specific epitope; such patients also lack immunoreactivity to the class...

...powerful immunising effect. After nasal administration of synthetic M vaccines, mice produce type-specific IgA antibodies and are protected from experimental systemic challenge with homologous M-type strains. 23 The adjuvant... streptococci leaves behind intact fimbriae, by which streptococci adhere to mucosal surfaces. The remaining ligand, lipoteichoic acid, binds to the mucosal receptor, fibronectin. This finding may explain the persistent pharyngeal carriage...

...haptenic carrier, but as a mucosal stimulant for the production of protective IgA type-specific antibodies 23 (figure 4). Several studies already point to the potential of this recombinant protein for oral...

SI DEBAR:

CITED REFERENCES:

...Adv Intern Med 1990; 35: 1-26. Pathogenesis  
Cunningham MW, Swerlich RA. Polyspecificity of antistreptococcal monoclonal antibodies and their implications in autoimmunity. J Exp Med 1986; 164: 998-1012.  
Khanna AK, Buskirk...

...HLA B cell antigen in rheumatic fever patients and their families as defined by a monoclonal antibody. J Clin Invest 1989; 83: 1710-18.

Stollerman GH. Rheumatogenic streptococci and autoimmunity. Clin Immunol...

THIS IS THE FULL-TEXT.

20/3, K/30 (Item 1 from file: 149)  
DI ALCO (R) File 149: TGG Health & Wellness DB (SM)  
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01307928 SUPPLIER NUMBER: 11461389 (USE FORMAT 7 OR 9 FOR FULL TEXT)

Septic shock: pathogenesis.

Gauser, M.P.; Zanetti, G.; Baumgartner, J.-D.; Cohen, J.

The Lancet, v338, n8769, p732(5)

Sept 21,

1991

PUBLICATION FORMAT: Magazine/Journal ISSN: 0099-5355 LANGUAGE: English

RECORD TYPE: Fulltext; Abstract TARGET AUDIENCE: Professional

WORD COUNT: 2658 LINE COUNT: 00287

...ABSTRACT: coagulation pathways may also be activated via mechanisms that are described. When stimulated by LPS, monocytes (the white blood cells that become scavenger cells when they lodge in organs) release cytokines...

... wall components. The classical pathway is mainly activated by complexes of cell-wall components and antibodies. The anaphylatoxins C3a and C5a that result from activation of these pathways are responsible for...

...leucocytes, such as chemotaxis, phagocytosis, and cytotoxicity, (11) and blocking of the adhesion process by monoclonal antibodies prevents tissue injury and improves survival in animal models of septic shock.

Factor XII (Hageman...

...central role in the pathogenesis of septic shock. It is activated by peptidoglycan residues and teichoic acid from the cell wall of gram positive organisms (S aureus, streptococci, pneumococci) as efficiently... of endorphins in the pathophysiology of shock is still incompletely understood. (19)

The cytokine network

Monocytic cells probably have a pivotal role in mediation of the biological effects of LPS (fig...

...remove and detoxify LPS from the blood, thus having a beneficial effect. Second, LPS-stimulated monocytes produce cytokines such as TNF and interleukin 1 (IL-1). Several binding sites for LPS...

...cell surface of macrophage have been described. (20-24) LPS can also interact with the monocytic cell membrane after binding to plasma molecules. An acute-phase protein called LPS-binding protein...

...moiety of LPS. (25) LPS-LBP complexes are a ligand for the CD14 receptors on monocytes and macrophages. (24) LPS when complexed with LBP can stimulate production of TNF by macrophages...

...with shock due to microorganisms that do not contain LPS. In animal models, anti-TNF antibodies given prophylactically before bolus intravenous injections of LPS or gram-negative bacteria, or given therapeutically...

...patterns were to be found during most cases of septic shock in humans, anti-TNF antibodies would be less likely to be effective when administered late in the course of shock...

...shown a pattern of TNF release different from that after bolus inoculation, and anti-TNF antibodies failed to prevent death in these models. [30,31] Thus, the release of TNF in...

...blocking of the binding of IL-1 to its cell-surface receptor, by means of monoclonal antibodies or IL-1 receptor antagonist, prevented the detrimental effects of LPS or Escherichia coli inoculation... will help to identify the subsets of patients that might benefit from administration of anti-cytokine antibodies, and the need for other cytokine inhibitors or anti-inflammatory agents.

#### REFERENCES

[1] Bone RC...

... 427-40.

[4] Calandra T, Glauser MP, Schellekens J, Verhoef J, the Swiss-Dutch J5 Immunoglobulin Study Group. Treatment of gram-negative septic shock with human IgG antibody to Escherichia coli J5: a prospective, double-blind, randomized study. J Infect Dis 1988; 158...

...in rabbits induced by administration of endotoxin or tissue factor: effect of anti-tissue factor antibodies and measurement of plasma extrinsic pathway inhibitor activity. Blood 1990; 75: 1481-89.

[15] van... 86.

[30] Bagby GJ, Plessala KJ, Wilson LA, Thompson KJ, Nelson S. Divergent efficacy of antibody to tumor necrosis factor- $\alpha$  in intravascular and peritonitis models of sepsis. J Infect Dis...

...of acute inflammation in vivo by IL-1 receptor antagonist and anti-IL-1 receptor monoclonal antibody. J Exp Med 1991; 173: 931-39.

[33] Wakabayashi G, Gelfand JA, Burke JF, Thompson...

DI ALCOG R) File 149: TGG Health & Wellness DB(SM)  
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01194382 SUPPLIER NUMBER: 08263509 (USE FORMAT 7 OR 9 FOR FULL TEXT)  
Product information section. (Clinical Laboratory Reference 1989) (buyers guide)  
Medical Laboratory Observer, v21, n13, p16(90)  
Annual, 1989  
DOCUMENT TYPE: buyers guide PUBLICATION FORMAT: Magazine/Journal ISSN: 0580-7247  
LANGUAGE: English RECORD TYPE: Fulltext TARGET AUDIENCE: Academic; Professional  
WORD COUNT: 57949 LINE COUNT: 05915

... kits for Hepatitis A HAVAB [R]-M EI A--Enzyme Immunoassay for the detection of IgM antibody to hepatitis A virus. HAVAB [R]-M-Radioimmunoassay for the detection of IgM antibody to hepatitis A virus. HAVAB [R] EI A--Enzyme Immunoassay for the detection of antibody to hepatitis A virus. HAVAB [R]--Radioimmunoassay for the detection of antibody to hepatitis A virus.

Diagnostic kits for Hepatitis B AUSAB [R]--Radioimmunoassay for the detection of antibody to hepatitis B surface antigen. AUSAB [R] EI A--Enzyme Immunoassay for the detection of antibody to hepatitis B surface antigen. AUSCELL [R]--Reverse Passive Hemagglutination for the detection of hepatitis...

... surface antigen (HBsAg) in human serum or plasma. Confirmatory test kit also available. AUSZYME [R] MONOCLONAL Qualitative third generation enzyme immunoassay for the detection of hepatitis B surface antigen (HBsAg) in...

... serum or plasma. Confirmatory test kits also available. CORAB [R]--Radioimmunoassay for the detection of antibody to hepatitis B core antigen in serum or plasma. CORAB [R]-M Radioimmunoassay for the qualitative determination of specific IgM antibody to hepatitis B virus core antigen (Anti-[HB.sub.c]IgM) in human serum or...

... 6 months or less) hepatitis B infection. CORZYME [R]--Enzyme Immunoassay for the detection of antibody to hepatitis B core antigen in serum or plasma. CORZYME [R]-M Enzyme Immunoassay for the qualitative determination of specific IgM antibody to hepatitis B virus core antigen (Anti-[HB.sub.c]IgM) in human serum or...

... HBe (rDNA) EI A--Enzyme Immunoassay for the detection of hepatitis B e antigen and/or antibody to hepatitis B e antigen. ABBOTT-HBe (rDNA)--Radioimmunoassay for the detection of hepatitis B e antigen and/or antibody to hepatitis B e antigen.

Hepatitis B Immune Globulin H-BIG [R]--Hepatitis B immune globulin (Human).

Diagnostic Kits for Hepatitis D ABBOTT ANTI-DELTA--Radioimmunoassay for the detection of antibody to hepatitis delta antigen (HDag) in human serum or plasma. ABBOTT ANTI-DELTA EI A--Enzyme Immunoassay for the detection of antibody to hepatitis delta antigen in human serum or plasma.

#### RETROVIRUS TESTS

ABBOTT HI V-I EI A--Enzyme Immunoassay for the detection of antibody to Human Immunodeficiency Virus Type I (HI V-I) in human serum or plasma. ABBOTT HTLV...

...s). For Research Use Only. ABBOTT HTLV-I EI A--Enzyme Immunoassay for the detection of antibodies to human T-Lymphotropic Virus Type I (HTLV-I) in human serum or plasma.

#### INFECTIOUS DISEASE AND IMMUNOLOGY TESTS

ABBOTT QW TOTAL AB EI A--Enzyme Immunoassay for the detection of antibody to cytomegalovirus (CMV) in human serum plasma and whole blood. ROTAZYME [R] II--Enzyme Immunoassay...

...in human fecal specimens. ABBOTT IgE EI A--Enzyme Immunoassay for the quantitative determination of IgE (Immunoglobulin Type E) in human serum or ...plasma. ABBOTT TOXO-G [TM] EI A--Enzyme Immunoassay for the qualitative and quantitative determination of IgG antibody to Toxoplasma gondii in human serum and plasma. ABBOTT TOXO-M [TM] EI A--Enzyme Immunoassay for the qualitative determination of IgM antibody to Toxoplasma gondii in human serum. ABBOTT RSV [TM] EI A--Enzyme Immunoassay for the detection...

...plasma, or urine.

#### RUBELLA TESTS

RUBACELL [R]--Passive Hemagglutination (PHA) test for the detection of antibody to rubella virus in serum or recalcified plasma specimens to determine the immune status of individuals. RUBAZYME [R]--Enzyme Immunoassay for the detection of IgG antibody to rubella virus in serum. RUBAZYME [R]-M--Enzyme Immunoassay for the detection of IgM antibody to rubella virus in serum. RUBAQUICK [TM] DIAGNOSTIC KIT--Rapid Passive Hemagglutination (PHA) for the detection of antibodies to rubella virus in serum specimens.

#### SEXUALLY TRANSMITTED DISEASE TESTS

GENOZYME [R]--Enzyme Immunoassay for...simultaneously monitors up to 16 wavelengths, from 340 to 660 nm for performing endpoint, kinetic, monochromatic, bichromatic, turbidimetric, and polychromatic analyses.

Abbott SPECTRUM EPx streamlines operation with total automation and process...

...development represents an on-going commitment to an expanding ABBOTT SPECTRUM Reagent product line:

* Theophylline(*)	* Immunoglobulin G(*)
* Phenytoin(*)	* Immunoglobulin A(*)
* Phenobarbital(*)	* Immunoglobulin M(*)
* Carbamazepine(*)	* CK-MB(*)

\* T4

(\*) In Development

TDx [R] System

APPLICATIONS IN: Therapeutic Drug Monitoring...

...Manual

Biogenic Amines

5-HIAA (Urine)

MHPG(\*) (Urine)

Immunosuppressives

Cyclosporine(\*\*)

SPECIFIC PROTEINS

C-Reactive Protein

IgG (Turbo)

IgA (Turbo)

IgM (Turbo)

Transferrin (Turbo)

Pregnancy Detection/Management

Fetal Lung Maturity

Total Free...analytes. Microparticles and glass fibers make it possible.

In Microparticle Enzyme Immunoassay (MEIA), uniquely designed antibody-coated microparticles provide a vast surface area to accelerate analyte binding. After binding occurs, and an enzyme-labeled conjugate is added, a conjugate/analyte/antibody or antigen sandwich is formed, which is then captured by the innovative glass fiber matrix...



...ability to automate a virtually unlimited range of immunoassays.

The increased surface area of the antibody coated microparticles accelerates the assay reaction, improving the assay result turn around time. The microparticles...

...kinetics with the reliability of solid-phase separation.

In this technique, a capture molecule (antigen, antibody, or viral particle) is coated onto a submicron ([is less than] 0.5um on average ...

...the sample in a reaction cell. During this step, the analyte is captured by the antibody on the microparticle surface. The IMk then adds an alkaline phosphatase conjugate that binds to the analyte/antibody complex on the microparticle surface, forming an antibody /analyte/conjugate "sandwich." The IMk transfers the solution to a glass fiber matrix. The microparticles carrying the conjugate/analyte/antibody "sandwich" adhere to the glass fibers. Excess reagent and other unbound material are washed away...

...48 tests per hour.

Available Assays: hCG TSH T4 T UPTAKE TOTAL T3 Ferritin Toxo IgG (\*) Toxo IgM(\*) Rubella IgG(\*) Rubella IgM(\*) AFP(\*) FSH(\*) LH(\*)

(\*) Available Summer, 1989

Menu Expansion:

Cancer Physiological Disorders Hepatitis AIDS...tests consisting in:

- \* FS test, a rapid procedure for the qualitative determination of soluble fibrin monomer complexes (SFMC) in plasma by the technique of hemagglutination. This method described by Largo in...XDP), in plasma or in serum by the technique of latex particle agglutination, using mouse monoclonal antibody raised against the D-Dimer epitope.
- \* Split-Prest, a rapid procedure for detection and determination of fibrin/fibrinogen degradation products (FDP) by agglutination of latex particles coated with specific antibodies.

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For further information about the products and services available from American Bioproducts Co. contact your...

...of Factor VIII and Alpha-2 Antiplasmin.

\* DI MERTEST [TM] II DI MERTEST [TM] II is a monoclonal antibody based latex agglutination assay for the direct and rapid measurement of cross-linked fibrin degradation...

...human tissue plasminogen activator antigen in plasma and biological fluids. The kit utilizes the double antibody principle which ensures that t-PA antigen measurements are unbiased by the presence of e.g. rheumatoid factor(s) and anti-goat antibodies. This robust method is superior to other methods for ruling out false positives when analyzing... wide range of third-generation chromogenic substrates and kits, highly purified human plasma proteins, numerous mono- and polyclonal antibodies to hemostasis-related antigens, and various unique coagulation reagents.

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ANTIBODIES INCORPORATED P.O. Box 1560 Davis, CA 95617

Ordering/Pricing/Technical Information: Toll Free (800...

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...a fast, convenient, and accurate alternative to microbiological culture. ANA/ DNA by IFA Our Antinuclear antibody (ANA) test kits utilize HEP2 substrate in either 6 or 12 well slide formats with...meet its long-term goals.

DIRECT CHLAMYDIA FA AND ELISA: Both the IMAGEN [TM] fluorescent antibody and IDEIA [TM] microdilution ELISA are direct specimen Chlamydia assays. The monoclonal antibody for each can detect elementary bodies from all fifteen (15) known serovars of C. trachomatis...

...tests for Rotavirus, Adenovirus 40, 41 and a culture confirmation test for respiratory Adenovirus. These monoclonal antibody tests employ break away micro-wells which allow batch or individual no waste testing. Reagents...

...equipment costs or capital expenditures. Reliably screens out negative specimens to lower culture costs.

ATLANTIC ANTI BODIES An INCSTAR Company 10 Nonesuch Road P.O. Box 60 Scarborough, ME 04074  
Ordering/Pricing...

...Information: Telephone: 800-343-3430 Fax: 207-883-4158 Telex: 94-4310-ATAB SCRB

Atlantic Antibodies, (ATAB [R]), offers an extensive line of human serum calibrators and antisera to human serum proteins that are monospecific, avid and high in titer. The SPQ [TM] TEST SYSTEM product line, brings ATAB quality...

...of the following serum proteins: [Al pha] 1 Acid Glycoprotein (new) Haptoglobin

[Al pha. sub. 1] Antitrypsin	Immunoglobulin A
Apolipoprotein A-1	Immunoglobulin G
Apolipoprotein B	Immunoglobulin M
Apolipoprotein E (new)	Lipoprotein (a) (new)
Complement C3	Monoclonal

Complement C4	Albumin (new)
C-Reactive Protein	Prealbumin (new)
	Transferrin

Fluorochrome and enzyme conjugated antibodies suitable for use in cytology and histology are also available.

AVL SCIENTIFIC CORPORATION 33 Mansell...coagulation products. We also offer a variety of educational opportunities, including seminars, workshops, and comprehensive monographs, that address the many technical aspects of thrombosis and hemostasis testing. Dade sales professionals are...

...test kits for use in clinical laboratories worldwide. The kits feature either convenient GammaCoat [TM] antibody coated tube technology or classical GammaDab [R] double antibody technology. Kits contain reagents sufficient for either 50, 60, 100, 125, 500, or 2,500...available for use on the ARRAY and ICS II.

Specific Protein Kits	Drug Reagent Kits
IgG	Phenytoin
IgA	Phenobarbital
IgM	Theophylline
[Al pha. sub. 1]-Antitrypsin	Gentamicin
C3 Complement	Tobramycin
C4 Complement...steps, eliminates waste.	

#### ENZYME IMMUNOASSAY REAGENTS

Epsilon [R] test kits are enzyme immunoassays which incorporate monoclonal antibodies and solid phase multi-site techniques utilizing coated beads. With the use of the Epsilon...

...ENTRY PROCEDURES.

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ASQ HIV is a new reagent test kit for the evaluation of multiple antibodies to Human Immunodeficiency Virus, Type I. Six antibodies can be detected by their reaction with genetically engineered peptides...anti p24 (gag), anti Kp55...

...are complete in less than four hours. An optical signal is obtained for each reactive antibody, providing objective absorbance data for antibody evaluation. Each kit contains three microtiter plates for 36 assays, controls, and all reagents required...tubes to a FACS [R] brand flow cytometer. For in vitro diagnostic use.

Becton Dickinson Monoclonal Reagents For research use only. Not for use in diagnostic or therapeutic procedures.

Kits Lymphoma...

...Human Leu-20 Anti-Human Leu-14 Anti-Human Leu-21 Anti-Human Leu-16 Monocyte/Granulocyte Reagents Anti-Human Leu-M1 Anti-Human Leu-M5 Anti-Human Leu-M8 Anti...

...Human Leucocyte (HL6-1) Anti-CALLA (CD10) Anti-HPCA-1 Anti-Human Ocytokeratin

Anti-Human Immunoglobulin Reagents Anti-Human [IgA sub.1]

Anti-Human IgG Anti-Human [IgA sub.2] Anti-Human IgD

Anti-Human Kappa Anti-Human IgM

Anti...

...Simultest T Helper/Suppressor Test

(Anti-Leu-3 FITC + Anti-Leu-2 PE) Simultest Control

([IgG sub.1] FITC + [IgG sub.2] PE) Simultest LeucoGATE

(Anti-Leucocyte FITC + Anti-Leu-M8 PE) Simultest

Anti-Leu...Kappa PE

Streptavidin APC (Allophycocyanin) Streptavidin DuoCHROME [TM]

(PE-Texas Red Conjugate) Streptavidin Texas Red

Monoclonal Controls Mouse [IgG sub.1]: Pure, FITC, PE

Mouse [IgG sub.2a]: Pure, FITC, PE

PATH [TM] Tissue Reagents Anti-Human Ocytokeratin Anti-Human...

...complete urinalysis work station available.

VIRALOGY ENZYGNOST [R] Rubella, anti-QM antigen for measurement of IgG and IgM antibodies and antigen in human serum

IMMUNOCYF Immunofluorescent Test Kits AFT [R] III, AFT [R] Systems...

San Diego, CA 92121

Ordering/Pricing/Technical Information TOLL FREE 1-800-633-4484

HUMAN IgG SUBCLASS QUANTITATION KITS - available as Polyclonal,

Monoclonal, Low Level and NEW Single dilution RID Kits and an Elisa Kit with precoated wells.

ANTIGEN SPECIFIC ELISA KITS - for quantitation of both Total IgG and subclass antibodies (IgG1, IgG2) specific for H. influenza, S. pneumoniae and C. tetani.

COMPLEMENT COMPONENT RID KITS...

...C8, C9, Factor B, Factor H, Factor I.

SERUM PROTEIN RID KITS - 26 different Kits (IgG, A, M, etc.).

FREE KAPPA AND LAMBDA RID KITS High and Normal level available.

CELL...

...MARKERS - 14 Newly Characterized CD Markers and other established cell surface markers.

ANTI SERA - 1100 + Polyclonal/monoclonal antibodies and conjugates.

AUTOCANAL BODY POSITIVE SERA - ENA, ANA, RF and others.

WHOLE PLASMA AND SERUM STANDARDS...

...leaders in anemia testing.

Bio-Rad also leads in the critical diagnostic areas of HIV-antibody testing, and drug monitoring. The Bio-Rad Novapath

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 Immunoblot Assay incorporates Western Blot technology for reliable confirmation of Antibody to HIV. Results are available in less than three hours. Bio-Rad tests kits for... Digoxin 198-3001 100 (coated tube)  
 INFECTIOUS DISEASES Novapath [TM] Immunoblot Assay(\*) for Detection of Antibodies to Human Immunodeficiency Virus (HIV)  
 Catalog No.  
 10-Test Kit 197-1000  
 30-Test Kit...

...RIA 1050  
 Occult Blood  
 Blood in Urine 1002  
 Blood in Stool 1001  
 Infectious Disease  
 Candi quant-IgG ELISA 7001  
 Canti quant-IgM ELISA 7003  
 Canti quant-IgA ELISA 7005  
 Gastritis & Peptic Ulcer-IgG  
 ELISA 7004  
 Gastritis & Peptic Ulcer-IgM  
 ELISA 7006  
 Ligand Serum Controls RIA, EIA, FIA \* TRU...

...EIA KITS T3 CLASP [R]-Bead T4 CLASP [R]-Bead  
 \* Multi-Well Gamma Counter  
 \* Polyclonal Antibodies  
 \* RNazol [TM]-A new method for RNA isolation  
 \* HETS [TM]-A high efficiency transfer solution... Other features of the analyzer are its multiwavelength diffraction grating/linear diode array photometer performing monochromatic or biochromatic analysis, and result transmission, real time or batch, through the RS232 interface to adenovirus antigens.  
 HUMAN LYME EIA Diagnostic EIA kit for the detection of human Lyme antibodies  
 RECOMBINANT HTLV-I EIA Research EIA for the detection of HTLV-I antibodies  
 LEUKOTEST [R]-FeLV Diagnostic EIA kit for the detection of Feline Leukemia Virus antigen.  
 RECOMBINANT [R] HIV-1 LA Five minute diagnostic latex agglutination test for the detection of antibody to HIV-1. Available through the Baxter Healthcare Corporation.  
 CAMBRIDGE MEDICAL TECHNOLOGY CORPORATION 575 Middlesex...

...CT Insulin  
 Etorphine [T.sub.3] CT  
 Fentanyl [T.sub.4] CT  
 BULK REAGENTS Monoclonal Antibodies Polyclonal  
 Antibodies Secondary Antisera Radiolabeled Ligands Normal Sera  
 Purified Antigens Viral Antigens EIA Conjugates and Substrates  
 CUSTOM SERVICES  
 Iodinations Antibody Production  
 Immuno-Coating OEM  
 CASCO STANDARDS 15 Leighton Road Yarmouth, ME 04096  
 Ordering/Technical/Pricing... Quality service and support provided by a experienced technical support team\* Available Microplate Systems(\*)  
 Toxo IgG EBV EBNA IgG  
 Toxo IgM EBV EBNA IgM  
 Rubella IgG EBV VCA IgG  
 CMV IgG EBV VCA IgM  
 CMV IgM Rubella IgG  
 HSV 1 IgG Lyme IgG

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HSV 2 IgG (\*) Some kits may be available for Research Use Only  
FLUORO-KIT TEST SYSTEMS  
\* Autoimmune Diseases...

... Diseases

Toxoplasma Streptococcus  
Cytomegalovirus Salmonella

HEPATITIS TEST SYSTEMS

\* AB-AUK-3 - Bead Technology to detect  
antibody to HBsAg \* AUK-3 - Bead Technology using  
monoclonal antibodies to test for HBsAg \* AB-COREK - Bead  
Technology using  
recombinant DNA to test for ANTI...

... assess a patient's immunity to rubella viremia by standardizing the  
results of quantitative rubella antibody with the CAP Certified  
Rubella Reference Material.

This reference material provides a precise standard for calibration  
of the quantitative determination of serum antibody (human) to  
rubella by hemagglutination inhibition assay, enzyme immunoassay,  
fluorescence immunoassay, and latex agglutination.

The...

... for Clinical Laboratory Standards (NCCLS) and are traceable to the CDC  
Reference Preparation for Serum Antibody to Rubella. They are  
packaged as three 0.5 mL vials; negative, borderline titer, and...

... values for 12 specific immunoproteins.

Albumin Transferrin  
Alpha-1-antitrypsin C3  
Alpha-2- C4  
macroglobulin IgG  
C-reactive protein IgA  
Ceruloplasmin IgM  
Haptoglobin

This reference material is traceable to the US... The COULTER STKS  
offers automated analysis of 20 hematologic parameters: total WBC count and  
lymphocyte, monocyte, neutrophil, eosinophil and basophil number and  
percent; RBC, Plt, Hgb, Hct, MCV, MCH, MCHC... precise analysis of white  
blood cells in their near native state. The VCS enumerates lymphocytes,  
monocytes, neutrophils, basophils and eosinophils, and indicates the  
presence of abnormal cells.

The three-dimensional morphologic... lymphomas, other  
immunodeficiencies, autoimmune diseases and transplant rejection, DNA cell  
cycle analysis, reticulocyte and platelet antibody enumeration.

Increased throughput, outstanding efficiency and superior operator  
safety make the new EPICS Profile II... fixed samples in less than 10  
minutes in three steps:

1. Add 10 [μL] of monoclonal antibody to 0.1  
mL whole blood sample, incubate 10  
minutes,
2. Place sample in Q...

... a complete system including the Workstation, Immuno-Prep reagents and  
CYTOSTAT [R] / COULTER CLONE [R] monoclonal antibodies.  
COULTER CYTOMETRY IMMUNOLOGY DIVISION OF COULTER 440 West 20th Street  
Hialeah, FL 33010  
Ordering/Technical...

... for multicolor analysis or tissue stains.

CYTO-STAT [R] / COULTER CLONE [R] Two-Color  
CLUSTER  
MONOCLONAL ANTI BODY DESIGNATION(\*)

For In Vitro Diagnostic Use  
 T11- RD1/ B1- FITC CD2/ CD20 (IgG1) (IgG2a)  
 T11...

... M1gG1- FITC M1gG1- RD1/ M1gG2a- FITC M1gM- RD1/ M1gG1- FITC  
 Single-Color CYTO-STAT [R]  
 MONOCLONAL

ANTI BODY CLUSTER

PRODUCT

DESIGNATION  
 For In Vitro Diagnostic Use  
 T11 (IgG1)

FORM

CD2

FITC  
RD1

T3 (IgG1)

CD3...

... IgG1)  
 M1gG1

CD45

FITC

FITC  
RD1

M1gG2a

-

FITC

M1gG2b

-

FITC

M1gM

-

FITC

COULTER CLONE [R] MONOCLONAL ANTI BODIES  
 MONOCLONAL

ANTI BODY CLUSTER

PRODUCT

DESIGNATION  
 For In Vitro Diagnostic Use

FORM

T1 (IgG2a)

CD5

Purified  
RD1

T3 (IgG1)

CD3...

... 6603369 box, 500mL per packet) (Flow cytometry or fluorescence  
 microscopy)

## ORDERING INFORMATION

COULTER CLONE [R] monoclonal antibodies are available in  
 25 and 100-test sizes as listed. CYTO-STAT [R]/COULTER CLONE [R]  
 monoclonal antibodies, both 2-color and single color, are  
 available in 50-test sizes. Purified, biotin, FITC...

## ... Grouping

Hospital Kit and Kit  
 Physician's Kit \* Strep B/Meningitis Kit  
 IMMUNOCHROMATOCHEMISTRY (\*)

\* StrepA-B

\* Monoclonal Mouse

\* Universal Kit

\* Primary Antibody

\* STAT Accessory

Sets

\* Kit for Rapid

\* Polyclonal Rabbit

\* Staining

\* Primary Antibody

\* Rabbit Universal

Sets

Kit

ALLERGY \* Total IgE \* Sopheia [TM] 1000 \* Allergen-specific \* Sopheia  
 [TM] 2000... DSL is the manufacturer of:

\* the only direct (non-extraction)

Androstenedione assay, \* the only double antibody Myelin Basic

Protein assay, \* the only Somatomedin-C assay with a

single three hour incubation...

## ... IGF-1

\* Cortisol

(IRMA)

\* DHEA- Sulfate

\* Testosterone

\* Estradiol

\* TSH Ultrasensitive

\* Ferritin (IRMA)

(IRMA)

\* Progesterone  
 Double Antibody Radioimmunoassays: \* Adrenocorticotrophic \*  
 Parathyroid  
 \* Hormone (ACTH) Hormone  
 \* Alpha Feto protein(\*) \* C-Terminal  
 \* Androstenedione \* Parathyroid  
 \* Calcitonin Hormone--M d...

... Radio-Receptor Assays: \* Estrogen Receptor(\*) \* Progesterone  
 Receptor(\*\*) (\*\*) For investigational use only (\*\*) For research use  
 only  
 Monoclonal and polyclonal antibodies, and other raw  
 materials are also available.  
 DIAMEDIX CORPORATION 2140 North Miami Avenue Miami, FL...

... T Uptake (NEW)  
 hCG (NEW)  
 TSH (NEW)  
 Infectious Disease  
 Lyme Disease (NEW)  
 VZV (NEW)  
 Rubella IgG or IgM  
 Toxoplasma IgG or IgM  
 Cytomegalovirus IgG or IgM  
 Herpes 1 or 2  
 Arthritis  
 Immunology/Rheumatology  
 Anti-DNA  
 Anti-DNP (deoxynucleoprotein)  
 Rheumatoid...

... Other Complement Products  
 Whole Complement  
 Complement Components C1-C4  
 Stable Cellular Intermediates  
 Preserved Sheep Blood  
 Antibodies to Sheep Red Cells  
 INSTRUMENTATION BP-12 Photometer For reading microwell strips at 405,  
 450... test systems to be introduced in 1989 include hCG-CUBE, LH-CUBE,  
 Strep A-CUBE, Mbo-CUBE, QM-CUBE, Rota-CUBE, Rubella-CUBE and  
 C.diff.-CUBE. All Immuno-CUBE assays... releases antigenic material from the  
 bacteria cell wall. This extract is then mixed with specific antibody  
 -sensitized latex particles, mixed and read within two minutes.  
 There are adequate reagent, extractant, mixing...

... Urine Benzodiazepines Screen Urine Cocaine Metabolites Screen Urine  
 Cannabinoids Screen

Immunology/Serology C-Reactive Protein Immunoglobulin G, A & M  
 Endocrinology Thyronine Uptake (TU) Thyroxine (T4)  
 \* Analyst [R] Benchtop Chemistry System  
 This... Western Blot Kit The first licensed kit for validating the  
 presence of AIDS virus (HIV) antibodies in human blood. Test kit  
 includes all necessary reagents and controls - no special equipment is  
 needed. Provides prompt validation of initial HIV screening results.  
 Identifies specific HIV antibodies in the patient's blood. May assist  
 physicians in establishing the clinical diagnosis of AIDS.  
 \* Western Blot Service This service for the confirmatory testing of  
 HTLV-III antibodies offers significantly enhanced sensitivity and  
 reproducibility, prompt and confidential reporting, and convenient and safe  
 handling...

... needs.

\* HIV ELISA Testing System A highly sensitive and specific blood

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screening test to detect antibodies to HIV in an easy to use  
automated system

\* Hepatitis ELISA Testing System A fast...

...labor efficient microplate technology and equipment as Du Pont's HIV  
ELISA test.

\* EBV ELISA Antibody Assay Kits Convenient ELISA technology in  
easy to use kits for detection of antibodies to all major  
Epstein-Barr Virus antigens. Six kits for complete EBV serologies include  
VCA-IgG VCA-IgM EBNA-IgG (for in vitro diagnostic use) and  
EA-R + D-IgG EA-R-IgG and EA-D-IgG (for research use  
only.)

\* Purified Monoclonal Antibodies to Viral Antigens  
Lyophilized, chromatographically purified monoclonal antibodies  
to CMV, EBV and HSV.

\* HTLV-1 A sensitive, Enzyme-linked Immunosorbent Assay that screens  
donated blood for antibodies to HTLV-1, a retrovirus associated with  
adult T-cell leukemia and neurological disorders.

HEMATOCLOGY...pregnancy, strep A, chlamydia and herpes. Kits are under  
development for gonorrhea and HIV-1 antibody (AIDS). These disposable  
diagnostic kits are completely self-contained and require no  
instrumentation. Built-in...

...Each kit consists of assay strips impregnated with multiple antigens.  
Each assay strip detects several antibodies simultaneously. The test  
may be performed on serum or heparinized whole blood, takes about twenty  
minutes to perform after setup, and requires minimal tech time. The  
presence of the antibodies in question are indicated by blue-violet  
dots and results require no instrumentation to interpret methods. The  
following kits are available:

\* IMMUNODOT [R] TORCH TEST. The test screens for antibodies to  
Toxoplasma gondii, rubella virus, cytomegalovirus, and herpes simplex  
virus. The assay was designed to...

...before or during pregnancy. \* IMMUNODOT [R] T.E.C.H. TEST. The test  
screens for antibodies to Toxoplasma gondii, Epstein-Barr virus,  
cytomegalovirus, and herpes simplex virus. The assay was designed...

...or for use in the immunocompromised patient. \* IMMUNODOT [R] RUBELLA  
TEST. The assay screens for antibodies to rubella in order to  
determine immune status.

MFC [TM] IMMUNOFLUORESCENT TESTS This product line consists of both  
kits and components to detect antibodies by the conventional and  
reliable indirect immunofluorescent method. Reagents are available to  
detect ANA as well as both IgG and IgM antibodies to the  
following organisms: \* Toxoplasma gondii \* Herpes type 1 \* Herpes type 2 \*  
Cytomegalovirus

HBO AND...Hb, [HbA.sub.2] and HbS.

IMMUNOCLOGY \* Radial Immunodiffusion (RID)

For RID quantitation of proteins: IgG

IgA, IgM, HbF, Transferrin, [Alpha.sub.1]

Antitrypsin, [C.sub.3], [C.sub.4], ATIII...that develops,  
manufactures, and markets PHOTON [R] instrument systems and TANDEM [R]  
diagnostic assays incorporating monoclonal antibody technology.

VISUAL ENDPOINT ASSAYS

TANDEM ICON [R] II HOG (Urine) TANDEM ICON [R] II HOG (Serum)

Pregnancy Test

TANDEM ICON II HOG is a monoclonal antibody-based  
pregnancy test. Its Immuno-Concentration [TM] format provides for detection  
of 20 mU/ml...

...results.

The ICON QSR CKMB assay detects CK-MB in serum by using two different  
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monoclonal antibodies that react with two distinct regions of the OK-MB molecule. One monoclonal antibody binds the B subunit and the second monoclonal antibody binds the M subunit of OK-MB.

The four zone ICON QSR cylinder incorporates Low...

...OK-MB result quickly and easily.

NON-ISOTOPI C ASSAYS

Hybritech's TANDEM E ASSAYS incorporate monoclonal antibodies in a two-site solid phase immunoenzymetric assay (IEMA). They deliver single point calibration, linear...

...Prolactin

\* TSH HS

\* Ferritin

\* PSA

ISOTOPI C ASSAYS

TANDEM R ASSAYS combine the performance of radiolabelled monoclonal antibodies in a two-site solid phase ImmunoRadioMetric assay (IRMA). They deliver solid phase convenience, procedural...

...PHOTON Era is an automated analyzer designed to process Hybritech's TANDEM E line of monoclonal antibody-based immunoassays. The instrument has been developed to eliminate the time-consuming tasks associated with...tissue culture products.

IMMUNOBIOLOGICALS

The Immunobiologicals Division of ICON Biomedical, Inc. carries complete line of antibodies, antisera, blood proteins, enzymes and human IgG subclass kits.

IMMUNODIAGNOSTIC PRODUCTS, INC. P.O. Box 193 North Salt Lake, Utah 84054...

...C-peptide RIA - VIP RIA\*

- Insulin RIA - Somatostatin RIA\*

HI STOICHEMICALS/ TUMOR MARKERS\*\*

- IgA - EMA - ANP

- IgG - LCA - FMRP

- IgG - Keratin - CCK

- CEA - GFAP - SP-1

- PSA - GABA - TH

- GHRF - CHAT

- Kappa Light Chains - S-100 - Lambda Light Chains - NSE - Fluorescent conjugates (FITC/TRITC) IgG Fractions

INSTRUMENTATION LABORATORY 113 Hartwell Avenue Lexington, MA 02173

Ordering/Technical/Pricing Information: Telephone: 617...staining.

A unique reagent deliver system -- using capillary gap action within two slides -- conserves costly antibodies and DNA probes for reaction with immobilized tissue samples. It consumes only 10% of the...

...Complementing our system is Labsystems wide range of diagnostic kits for infectious diseases.

LABSYSTEMS MONOCLONAL ANTIBODIES Antibodies to

Intermediate Filaments including CYTOKERATIN, PKK1, PKK2, PKK3, VIMENTIN, NEUROFILAMENT, DESMIN, and GFAP. Highly specific...1561412 (MDXBIO) Fax # 415-573-6734

Ordering/Pricing/Technical Services Call (415) 573-3315

MURINE MONOCLONAL ANTIBODIES ATCH

ACTH FITC

Albumin FSH

Alkaline Phosphatase [Beta]-D-Galactosidase

(Calif. Intestine) (E. coli)

Alkaline...

...Peroxidase

Alpha-2-Macroglobulin

HTLV III

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AFP IgA  
 Apo A-I IgE  
 Apo A-II IgG  
 Apo B IgM  
 Atrial Natriuretic Insulin  
 Peptide PAP  
 Caffeine Penicillin  
 CEA Progesterone  
 Cortisol Prolactin  
 CRP...  
 ...Ferritin Testosterone  
 Fibronectin Transferrin  
 Folate Vitamin B12  
 DEFINING HUMAN IMMUNOGLOBULINS DEFINING HUMAN LEUCOCYTES ANTIGENS  
 POLYCLONAL ANTIBODIES Goat Anti-Apo A-I Goat Anti-Apo-B Goat  
 Anti-Apo-E Goat Anti-IgE Goat Anti-IgE Goat Anti-Mouse IgG Goat  
 Anti-TSH Rabbit Anti-Mouse IgG Rabbit Anti-Strep A Many more--please  
 inquire  
 PURIFIED ANTIGENS  
 AFP Ferritin  
 Apo A-1...

...peroxidase-based enzyme immunoassays OPD TABLETS--for peroxidase-based  
 enzyme immunoassay tests (Ortho-phenylene diamine) ANTIBODY  
 --HORSE RADISH PEROXIDASE CONJUGATES: (Monoclonal or Polyclonal)  
 SPECIAL CUSTOM MADE ANTIBODY-ENZYME CONJUGATES: Alkaline Phosphatase,  
 [Beta]-galactosidase and other enzymes  
 REAGENTS FOR IMMUNOCHEMISTRY  
 ENZYME IMMUNOASSAY COMPONENTS...

## ...PREGNANCY VISUAL COLOR TEST

Early pregnancy visual color tests available in tubes/well or dipstick  
 (\*) antibody coated (\*) visual color change (\*) Positive results as fast  
 as 5 mins. (\*) Low sensitivity in serum or urine  
 LH VISUAL COLOR TEST FOR OVULATION (\*) antibody-coated  
 tubes/wells/dipsticks (\*) fastest test on market--results in only 15 minutes  
 (\*) Simple to perform (\*) Economical and Convenient  
 STREP A ELISA TEST (\*) antibody coated tubes (\*) FASTEST - results  
 in 5 minutes!! (\*) EASY - 4 simple steps provide distinct color  
 change...

...MICROTITER WELL ASSAYS HCG, LH, FSH, TSH, Prolactin, Ferritin, IgE, AFP,  
 CEA, HGH

## CUSTOM SERVICES MONOCLONAL ANTIBODY DEVELOPMENT:

Immunization/Hybridization/Cloning/Antibody production and  
 characterization ENZYME IMMUNOASSAY KIT DEVELOPMENT: Solid phase  
 immobilization/Antibody-Enzyme conjugation/Chromogen solution  
 MERIDIAN DIAGNOSTICS, INC. 3471 River Hills Cincinnati, OH 45244  
 Ordering/Pricing...

...Products Including: \* Cryptococcal Antigen Detection \* Immunodiffusion  
 Antigens/Antisera \* Complement Fixation Antigens/Antisera  
 Endo-Staph [TM]: Teichoic Acid Antibody Kits Meristar  
 [TM]: Mycoplasma pneumoniae Antibody Detection Kit Culture  
 Confirmation Products for \* Beta-Hemolytic Streptococci \* G.C. \*  
 Campylobacter Rotavirus Antigen Detection...

...enzyme-donor is conjugated to the drug. When the enzyme-donor reacts  
 with digoxin-specific antibody supplied in the kit, it inhibits the  
 reassembly of these enzyme fragments. The serum concentration...

...T4 Mab Assay, Catalog No. 80-1300 is available in a 200-test  
 configuration. The monoclonal antibody assay requires no

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 pretreatment steps, generates a linear curve (only 2 point calibration required). It... Et hoximide  
 Netilmicin Phenobarbital  
 Tobramycin Phenytoin  
 Primidone  
 Valproic Acid  
 Anti-Arrhythmics Anti-Asthmatics  
 N-acetylprocainamide  
 Procainamide Monoclonal  
 Quinidine Theophylline  
 SERA-TEK [R] Quantitative Microagglutination Tests for Thyroglobulin and Mitochondrial Antibodies in Serum Now features New Gelatin carrier particles and improved procedure.  
 These kits provide materials for the quantitative determination of thyroid antibodies in serum. Both tests aid in the determination and confirmation of thyroid autoimmune disease, and...

...techniques is required for performance of the tests.  
 SERA-TEK [R] MHA-TP [R] Treponemal Antibody Test Recognized by CDC as Standard Confirmatory Test  
 SERA-TEK Treponemal Antibody Test is designed to be used as an aid in the detection and confirmation of syphilis antibodies.  
 SERA-TEK is based on the micro-agglutination of sensitized sheep erythrocytes by serum containing antibodies of T. pallidum  
 Microbiology  
 M-CROSTIX [R] -3 Reagent Strips Box of 25 foil-wrapped strips...  
 AUTOLET [R] Kit; includes: 1 plastic wallet, 1 AUTOLET [R], 10 Regular Puncture platforms, 10 MONOLET [R] lancets.  
 No. 2791--AUTOLET [R] Platforms; Box of 200 Regular Puncture platforms for use...RUBELLA AND MUREX SUDS TOXO ASSAYS Two rapid, colorimetric immunoassays for the qualitative detection of antibodies to rubella virus or Toxoplasma gondii--a means of determining the immune status with a... Proteins, Antisera/Conjugates  
 Subclasses and plasma proteins,  
 secretory, hepatitis, coagulation, gamma  
 globulin fractions/immunofixation,  
 IgG (7S), F(ab')<sub>2</sub>, reference reagents,  
 J chain, MAb, NORDIMUNE [TM],  
 milk proteins, standards. \* Mouse  
 IgG (7S), conjugates, screening  
 reagents, MAb, milk proteins. \* Rat  
 IgG (7S), conjugates, MAb, screening  
 reagents. \* Animal Protein Reagents  
 Bovine, cat, chicken, dog, goat, guinea  
 pig, hamster, horse, monkey, rabbit,  
 sheep, swine, RBC, IgG (7S),  
 conjugates, PAP complexes for immuno-enzyme  
 techniques. \* Purified protein antigens, stains, reference sera,  
 human...

...and Master's degree-level scientists.  
 The current product line includes an impressive array of  
 monoclonal anti-human leukocyte reagents, monoclonal  
 anti-retrovirus reagents, monoclonal anti-human cytokine reagents,  
 avidin-biotin reagents, as well as second antibodies (goat) and  
 anti-human immunoglobulin reagents (goat). In addition a special  
 program for large scale product users, the Qlympus Immunochemicals...  
 ANTIMICROBIAL SUSCEPTIBILITY  
 DIFFUSION DISK TESTING  
 SYSTEM AND DESICCANT STREPTOCOCCAL GROUPING TESTS  
 CLINICAL VIROLOGY PRODUCTS MONONUCLEOSIS TESTS RHEUMATOID FACTOR  
 TESTS EPSTEIN BARR VIRUS TESTS TOXOPLASMA TESTS CYTOMEGALOVIRUS TESTS  
 HERPES TESTS

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Advances in Immunology: The Immune System (First of Two Parts) (Review Article)

Delves, Peter J.; Roitt, Ivan M  
 The New England Journal of Medicine  
 Jul 6, 2000; 343 (1), pp 37-49  
 LINE COUNT: 00712 WORD COUNT: 09832

## TEXT

...improve on repeated exposure to a given infection. The innate responses use phagocytic cells (neutrophils, monocytes, and macrophages), cells that release inflammatory mediators (basophils, mast cells, and eosinophils), and natural killer...

...with them in the response to the antigen. B cells secrete immunoglobulins, the antigen-specific antibodies responsible for eliminating extracellular microorganisms. T cells help B cells to make antibody and can also eradicate intracellular pathogens by activating macrophages and by killing virally infected cells...

...from small chemical structures to highly complex molecules. Both the T-cell receptor and the antibody that is embedded in the B-cell membrane, the B-cell receptor, have binding sites... Macrophages (derived from blood-borne monocytes) possess receptors for carbohydrates that are not normally exposed on the cells of vertebrates, (Ref...

...discriminate between 'foreign' and 'self' molecules. In addition, both macrophages and neutrophils have receptors for antibodies and complement, so that the coating of microorganisms with antibodies, complement, or both enhances phagocytosis. (Ref. 6) The engulfed microorganisms are subjected to a wide...

...patterns include yeast-cell-wall mannans, lipopolysaccharides on the surface of gram-negative bacteria, and teichoic acids, which are present on gram-positive bacteria. (Ref. 9) \*Figure 1: Function of Interdigitating... affinity receptors for IgE (Fc(epsilon)R) (Ref. 14) and thereby become coated with IgE antibodies. These cells are important in atopic allergies such as eczema, hay fever, and asthma, in...

...in one of two ways. Like many other cells, they possess Fc receptors that bind IgG (Fc(gamma)R). These receptors link natural killer cells to IgG-coated target cells, which they kill by a process called antibody-dependent cellular cytotoxicity. The second system of recognition that is characteristic of natural killer cells...

...receptors, they play an important part in the clearance of immune complexes consisting of antigen, antibody, and components of the complement system.

Soluble Factors in Innate Defense  
 Innate responses frequently involve...

...triggered by one of three pathways. (Ref. 18) The classic pathway is activated by antigen-antibody complexes, the alternative pathway by microbial-cell walls, and the lectin pathway by the interaction... interferon-(alpha) has proved valuable in the treatment of melanoma. (Ref. 24) Infliximab, a chimeric monoclonal antibody against tumor necrosis factor (alpha), has had strikingly beneficial effects in patients with rheumatoid arthritis...



...become antigen-dependent.

#### The Structure of Antigen-Specific Molecules

##### The B-Cell Receptor and Soluble Antibodies

Antibodies consist of two identical heavy chains ...and light chains form the constant regions, which define the class and subclass of the antibody and govern whether the light chain is of the (kappa) or (lambda) type. The amino acid sequence of the constant region of the heavy chains specifies five classes of immunoglobulins (IgG, IgA, IgM, IgD, and IgE), four subclasses of IgG and two subclasses of IgA. These classes and subclasses have different functions. Each type of antibody can be produced as a circulating molecule or as a stationary molecule. The latter type...

...contact with the antigen. One of the two antigen-binding arms (Fab) of the bivalent antibody molecule is indicated. The circulating version of the antibody contains the same four chains but lacks the transmembrane sequence that anchors the B-cell...

...are glycoproteins and contain 3 to 13 percent carbohydrate, depending on the class of the antibody. The carbohydrate is essential in maintaining the structure of the antibody. The basic antibody "monomeric unit" (which is biochemically a tetramer) is bivalent, with two antigen-binding arms of identical specificity. Each of these arms can be cleaved proteolytically in the laboratory to yield individual monovalent antigen-binding fragments (Fab) (Fig. 4). (Ref. 30) Another part of the immunoglobulin molecule, the Fc region, contains most of the constant region of the heavy chains. The...

...The T-Cell Receptor

Unlike antibodies, T-cell receptors are produced only as transmembrane molecules. They consist of (alpha)/(beta) or...

...gamma), and (delta) chain contains a variable domain and a constant domain. As in the antibody molecule, the variable domains contain three complementarity-determining regions (Fig. 4), which in the case...

...gamma)/(delta) T cells. Other (gamma)/(delta) T cells do recognize antigen directly, just as antibody molecules do. (Ref. 32)

##### The Diversity of Antigen Receptors

It has been estimated that lymphocytes are capable of producing about 10(sup 15) different antibody variable regions (B cells) and a similar number of T-cell-receptor variable regions. Remarkably...TCRA and TCRA loci do not contain D segments. And, as in the case of immunoglobulin genes, each locus contains multiple V, D, and J genes; on TCRA, for example, there...

...joins one gene segment of each type (e.g., VDJC in the case of the immunoglobulin heavy chain) to form a linear coding unit for each chain of the receptor. Each...

...developmental stages of the lymphocyte. The events involved in generating a coding sequence for the immunoglobulin heavy chain are shown. Early in B-cell development, pro-B cells mature into pre...

...genes that do not undergo rearrangement. As the pre-B cell continues to mature, the immunoglobulin light-chain genes undergo rearrangement; the resulting light chain replaces the surrogate light chain, and...

...on the cell surface. The B-cell receptors at this stage also usually include IgD antibodies with the same specificity as the IgM molecule, produced by alternative splicing of the rearranged...

...B cell further differentiates into a plasma cell, which secretes high

levels of the specific antibody (or into a memory B cell). The same general principles regarding the rearrangement process apply... is replaced by another V gene segment. The constant region specifies the class of the antibody (e.g., IgM or IgG), and during the immune response, the VDJ unit in B cells can join with different constant-region genes to alter the class of antibody in a process called class switching. (Ref. 38)

#### Clonal Selection

There are no more than...

...each B cell is programmed to express only one of the vast number of potential antibodies, all the antigen-receptor molecules on a given lymphocyte have the same specificity. Such clones...

...bind to a unique clone. |\*Figure 6.-Recognition of Epitopes by B Cells. Using the antibody molecule as its receptor, the B cell recognizes epitopes on the surface of the antigen...

...is stimulated by this contact, the B cell proliferates, and the resulting clones can secrete antibody whose specificity is the same as that of the cell-surface receptor that bound the...

...within the germinal centers of secondary lymphoid tissues. The changes in amino acids in the antibody that result from this process fine-tune the recognition of antigen by B-cell receptors and determine the strength of binding (affinity) of the antibody. The stronger the binding to antigen, the greater the chance the B cell has of surviving and multiplying -- a classic Darwinian mechanism of selecting cells that produce high-affinity antibodies. The result of clonal selection is a population of B cells with high affinity and...

...immune response, generates both effector T and B cells (cytotoxic and helper T cells and antibody-secreting plasma cells) and memory T and B cells. The memory cells enable a quantitatively...

...larger number of lymphocytes and, in the case of B cells, induces greater levels of antibody that has a greater affinity for the antigen than the antibody of the primary response...

...adhesion and signaling cell-surface molecule. They are the source of the so-called natural antibodies, which are IgM antibodies and are frequently polyreactive (i.e., they recognize several different antigens, often including common pathogens and autoantigens). In most cases, natural antibodies have a relatively low affinity. (Ref. 40, 41...

...to as B2 cells. Before they encounter antigen, mature B2 cells coexpress IgM and IgD antibodies on their cell surface, but by the time they become memory cells, they have usually switched to the use of IgG, IgA, or IgE as their antigen receptors. Complexes of antibodies with a newly encountered antigen and complement are localized in the follicular dendritic cells (a...

...B-cell responses occur. Within these germinal centers, B2 cells that encounter the antigen undergo immunoglobulin class switching and begin to produce IgG, IgA, or IgE, and somatic hypermutation of their antigen-receptor genes occurs. Memory cells and...

...also generated in the germinal centers. The final stages of differentiation of B2 cells into antibody-secreting plasma cells occur within the secondary lymphoid tissues but outside the germinal centers. Although...

...they are subjected to a series of selection procedures (Fig. 7). (Ref.

45) Unlike the antibody molecule, which acts as the antigen receptor on B cells and recognizes antigen in its...

...in immune responses, were originally characterized on the basis of their reactivity to panels of monoclonal antibodies. The antibodies produced by various laboratories were said to form a cluster when they could be grouped... and other infectious organisms. In addition, they have an important immunoregulatory role because they influence antibody production and immunoglobulin class switching by B cells and modify T-cell responses. (Ref. 32) Precisely how they...

...cell population. This is sufficient to maintain tolerance because it denies the help essential for antibody production by self-reactive B cells.

#### CITED REFERENCES

...J, Brucoleri R, Newell J, Murphy D, Haber E, Karplus M Molecular anatomy of the antibody binding site. J Biol Chem 1983; 258: 14433-7.

2. Garcia KC, Teyton L, Wilson...

...D, Nicola N. Colony stimulating factors. Cambridge, England: Cambridge University Press, 1995.

29. Edelman GM. Antibody structure and molecular immunology. Science 1973; 180: 830-40.

30. Porter RR. Structural studies of...

...delta T cells. Adv Immunol 1999; 71: 77-144.

33. Tonegawa S. Somatic generation of antibody diversity. Nature 1983; 302: 575-81.

34. Schatz DG, Oettinger MA, Schlissel MS. V(D...

... 505-11.

38. Casellas R, Nussenzweig A, Wierffell R, et al. Ku80 is required for immunoglobulin isotype switching. EMBO J 1998; 17: 2404-11.

39. Dutton RW, Bradley LM, Swain SL...

...6.

42. Sfikis MK, Ahmed R. Long-lived plasma cells: a mechanism for maintaining persistent antibody production. Curr Opin Immunol 1998; 10: 252-8.

43. Krulsbeek AM. Regulation of T cell...

20/3, K/33 (Item 2 from file: 444)

DIALOG File 444: New England Journal of Med.

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Response to Digosaccharide-Protein Conjugate Vaccine against Hemophilus Influenzae b in Two Patients with IgG(sub 2) Deficiency Unresponsive to Capsular Polysaccharide Vaccine (Medical Intelligence)

Insel, Richard A.; Anderson, Porter W Ph.D.

The New England Journal of Medicine

August 21, 1986; 315 (8), pp 499-503

LINE COUNT: 00386

WORD COUNT: 05335

Response to Digosaccharide-Protein Conjugate Vaccine against Hemophilus Influenzae b in Two Patients with IgG(sub 2) Deficiency Unresponsive

#### TEXT

...IN healthy persons IgG antibodies to polysaccharides are predominantly of the IgG(sub 2) subclass (Ref. 1-3). Selective deficiency of this subclass is associated with inability to produce antibodies to bacterial capsular polysaccharides, which confer protective immunity to encapsulated bacteria. However, the basis of the relation between antibody responses to capsular polysaccharide and the IgG(sub 2) subclass has not been defined. Some insight into that mechanism is offered by the present study of two children with selective IgG(sub 2) deficiency and a documented lack of antibody response to immunization with the capsular polysaccharide vaccine of Hemophilus influenzae b. Both patients were...

...covalently linked to diphtheria toxoid. In one patient, primary immunization with the conjugate vaccine induced antibody to the capsular polysaccharide and reimmunizations induced anamnestic responses to a moderately high titer (8.4 microgram per milliliter). The induced antibody was predominantly of the IgG(sub 1) subclass, with a contribution from the IgG(sub 2) subclass; it was restricted in diversity and had bactericidal activity in vitro. However, the conjugate vaccine failed to prime for antibody responsiveness to subsequent immunization with the capsular polysaccharide vaccine in this patient, in contrast to healthy young infants, in whom the vaccine both induces antibody and primes for 'mature-for-age' responses to the capsular polysaccharide vaccine. In the other patient, primary immunization with conjugate vaccine induced capsular polysaccharide antibody to a titer of 2.1 microgram per milliliter. The antibody was also predominantly of the IgG(sub 1) subclass, included a contribution from the IgG(sub 2) subclass, and had bactericidal activity in vitro. Reimmunization was considered inadvisable. These findings suggest that a defect of immunoregulation was the basis for the antibody unresponsiveness in these patients with IgG(sub 2)-subclass deficiency...

...Serum IgG antibody to diphtheria toxoid was measured by an enzyme-linked immunosorbent assay, and an antibody titer was assigned by comparison with the antibody of a human IgG immunoglobulin preparation that was standardized with reference to the Food and Drug Administration diphtheria horse antitoxin serum (Lot A-43), as previously described (Ref. 5). Total serum antibody to the H. influenzae b capsular polysaccharide was estimated in a Farr-type radioantigen binding...

...and calibrated with a standard antiserum from the Office of Biologics (FDA). The distribution of antibody isotypes was determined by an enzyme-linked immunosorbent assay that used wells coated with derived polysaccharide (Ref. 8) and alkaline phosphatase-labeled affinity-purified antibody to human immunoglobulin classes (Tago, Burlingame, Calif.) as the secondary reagents. To determine the IgG subclass of type b capsular polysaccharide antibody, the secondary reagents used were monoclonal antibodies to human IgG subclasses: for IgG(sub 1), BAM15 (Seward Laboratory, Bedford, England); for IgG(sub 2), HP6014; for IgG(sub 3), HP6047; and for IgG(sub 4), HP6022 (Centers for Disease Control, Atlanta). Type-specific monoclonal antibodies were used to determine antibody light chains (HP6053 and HP6054, Centers for Disease Control). Murine monoclonal antibodies were detected by sequential incubation of the wells with a biotinylated goat antimouse IgG antibody, which lacked reactivity with human immunoglobulins (Hybridoma Sciences, Atlanta), by incubation with an avidin-biotin...

...The specificity of the IgG subclass-specific monoclonal antibodies has been described (Ref. 9) and was reconfirmed by assay with myeloma proteins and human hybridoma antibodies of the IgG (sub 1) and IgG(sub 2) subclasses ...toxoid, or tetanus toxoid (Ref. 10,11). A difference in titer or affinity of the monoclonal subclass antibody or in the accessibility of the subclass-specific epitopes to binding by monoclonal antibody after the antibody-antigen site was occupied by antigen was assayed as described, (Ref. 12) and accounted for less than a twofold difference in the sensitivity in detecting human IgG(sub 1) and IgG(sub 2) subclasses. The murine monoclonal antibody to human IgG(sub 2) was capable of detecting a human hybridoma antipapillary antibody at a level of 1 ng per milliliter...

...Isoelectric focusing analysis of antibody was performed as described elsewhere (Ref. 13). The in vitro bactericidal activity against *H. influenzae*...

#### ...Case Reports

##### Patient 1

An eight-year-old boy had IgG(sub 2)-subclass deficiency and had had recurrent episodes of otitis media, pneumonia, and formation...

...was no family history of similar symptoms. When the patient was seven years old, the IgG level was 1154 mg per deciliter; IgA, 38 mg per deciliter; IgM, 34 mg per deciliter; IgE, 33 IU per milliliter; IgG (sub 1), 918 mg per deciliter; IgG(sub 2), 20 mg per deciliter (markedly decreased); IgG(sub 3), 57 mg per deciliter; and IgG (sub 4), 63 mg per deciliter (measured by P. Schur, Boston). The isohemagglutinin titer of antibody to blood group A was 1:4, and that to blood group B, 1:2 (both low and delayed in appearance for age); the antibody response to tetanus toxoid immunization was normal; antibody titers were undetectable before immunization with pneumococcal capsular polysaccharide types 1, 4, 6A, 7, 8, 9, 12, and 23, and no antibody response was detected after immunization; antibody titers were detectable but low before immunization with pneumococcal capsular polysaccharide types 3, 14, 18, and 19, and no antibody response was detected after immunizations (performed by G. Schiffman, Brooklyn). The patient had had absolute...

...age of two years.

##### Patient 2

A 16-year-old girl had combined deficiency of IgG(sub 2), IgG(sub 4), and IgA and had had recurrent otitis media, conjunctivitis, and upper respiratory tract...

...was no family history of similar symptoms. When the patient was 13 years old, the IgG level was 388 mg per deciliter; IgA, 7 mg per deciliter; IgM, 38 mg per deciliter; IgE, 10 IU per milliliter; IgG(sub 1), 270 mg per deciliter; IgG(sub 2), 0; IgG(sub 3), 66 mg per deciliter; and IgG(sub 4), 6 mg per deciliter. The isohemagglutinin titer of antibody to blood group B was 1:2; antibody response to tetanus toxoid immunization was normal; antibody titers were undetectable before immunization with pneumococcal capsular polysaccharide types 3, 4, 6A, 7, 8, 9, 12, and 23, and no antibody response was detected after immunization; antibody titers were low before immunization with types 1, 14, 18, and 19, and no response was detected except a low, nonprotective response to type 18. Antibodies to IgA were detected by passive hemagglutination...

...the patient was 22 months old and again five years later failed to induce an antibody response above the preimmunization titers of 0.02

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and 0.04 microgram per milliliter, respectively...

...repeated one and two months later (Table 1). The first of these immunizations increased the antibody titer eightfold, and each of two subsequent booster immunizations also increased the titer. After the three immunizations the final antibody titer (8.4 microgram per milliliter) was approximately 160 times that before immunization (Table 1). Antibody to diphtheria toxoid -- the protein component of the vaccine -- increased to a normal level after...

...vaccine in an attempt to increase the magnitude and prolong the duration of the elevated antibody titer. However, the titer continued to decrease, from 2.5 to 1.8 microgram per...

...and 0.23 microgram per milliliter at 12 months after the third immunization. \*Table 1. Antibody Response to Conjugate (Digosaccharide-Protein) Vaccine and Polysaccharide Vaccine in Patient 1.

\*\*TABLE OM TTEDThe isotype of the polysaccharide antibody induced initially by the conjugate vaccine was predominantly IgG (Table 2).

The sixfold increase in antibody titer after the third conjugate-vaccine immunization resulted from contributions of antibody of the IgM as well as the IgG isotype. The decrease in titer three months after the third immunization was accompanied by a decrease of 74 percent in the detected IgM antibody titer and 42 percent in IgG. The IgG subclass of the postimmunization

antibody was almost exclusively IgG(sub 1) (Table 3). However, approximately 4 percent of the IgG antibody detected after the third immunization represented IgG(sub 2). No change occurred in the antibody isotype or distribution of IgG subclasses after subsequent reimmunization with the isolated capsular polysaccharide vaccine. \*Table 2. Isotype of Antibody to the b Capsular Polysaccharide Induced by the Conjugate Vaccine in Both Patients \*. \*\*TABLE OM TTED\* \*Table 3. IgG Subclass of Antibody to the b Capsular Polysaccharide Induced by the Conjugate Vaccine in Both Patients \*. \*\*TABLE OM TTED...

...The antibody induced by conjugate vaccine was almost exclusively of the kappa light-chain type. No antibody was detected in the preimmunization serum by isoelectric focusing analysis (Fig. 1). A single clonotype...

...third immunizations, which also induced new clonotypes. In vitro bactericidal assay of the capsular polysaccharide antibody revealed that the serum titer was less than 2 before the second immunization, 2 after...

...2 at 10 months after the third immunization. \*Figure 1. Isoelectric Focusing Patterns of Serum Antibody to the H. influenzae b Capsular Polysaccharide after Immunization with Digosaccharide-Protein Conjugate Vaccine. Lane...

...G per microgram, cross-linked with 0.1 percent glutaraldehyde, desalted, and dried (Ref. 13). Antibody was detected by exposing the gels to Kodak X-Omat AR film\*. \*\*FIGURE OM TTED...

...Patient 2 had no antibody response to immunization with capsular polysaccharide vaccine at 13 or 15 years of age. Immunization with a conjugate vaccine increased the antibody titer 17-fold, to 2.1 microgram per milliliter (Table 4). Local erythema, induration, and tenderness at the site of injection precluded secondary immunization. The induced antibody was mostly IgG, kappa light-chain type, with predominance of the IgG(sub 1) subclass (Tables 2 and 3), and was shown to be restricted by isoelectric focusing analysis. In addition, a distinct, low IgG(sub 2) antibody response was detected after conjugate-vaccine immunization. The vaccine increased bactericidal activity

in serum in...

...preimmunization titer of less than 2 to a titer of 2. \*Table 2. Isotype of Antibody to the b Capsular Polysaccharide Induced by the Conjugate Vaccine in Both Patients -- \*\*TABLE OM TTED\*\* \*Table 3. IgG Subclass of Antibody to the b Capsular Polysaccharide Induced by the Conjugate Vaccine in Both Patients -- \*\*TABLE OM TTED\*\* \*Table 4. Antibody Response to Polysaccharide Vaccine and Conjugate Vaccine in Patient 2. \*\*TABLE OM TTED...

...Discussion

Both patients had deficiency of the IgG(sub 2) subclass, poor antibody responses to the capsular polysaccharide of H. influenzae b and Streptococcus pneumoniae and to blood-group-substance polysaccharides, but normal antibody responses to the protein tetanus toxoid -- an association observed in other patients with the deficiency...

...Immunogenicity of such conjugates may not be assumed to be present in all patients with IgG(sub 2)-subclass deficiency, however, because of the heterogeneity of this disorder (Ref. 15-21...

...The basis of the association between poor capsular-polysaccharide antibody responses and deficiency of the IgG(sub 2) subclass has not been elucidated. IgG(sub 2) deficiency could result from a defect of the IgG(sub 2) heavy-chain constant-region gene or the adjacent switch sequence, as in some patients with IgG(sub 2) deficiency who have a broad gene deletion on chromosome 14 (Ref. 21). Other defects that could cause IgG(sub 2)-subclass deficiency include failure of a T-cell subset to provide -- or of...

...B cell to elicit or respond to -- cellular interactions involved in switching or selecting an IgG(sub 2)-isotype response. In mice, T cells can direct isotype switching (Ref. 22) as well as influence antibody responses to polysaccharides (Ref. 23). In healthy humans the antibody response to a number of bacterial polysaccharides -- levan, dextran, teichoic acids, group A streptococcal polysaccharide, and H. influenzae b and pneumococcal capsular polysaccharide -- is wholly or partly restricted to the IgG(sub 2) subclass (Ref. 1-3,17,24,25). In contrast, IgG(sub 1) and IgG(sub 3) predominate in the human IgG antibody response to protein antigens (Ref. 1,17,25). Polysaccharides, with cooperative interactions from T cells, could preferentially activate production of the IgG(sub 2) subclass. A conjugate vaccine would have the potential to bypass poor antibody responses to the unconjugated capsular polysaccharide if the vaccine stimulated cellular interactions for saccharide antibody production as activated by proteins, which act as immunogenic antigens in IgG(sub 2)-subclass deficiency...

...vaccine in these two patients suggests the presence of a defect in cellular cooperation. The immunoglobulin variable-region genes coding for this antibody were not restricted to pairing only with the IgG(sub 2) heavy-chain constant-region gene in these patients. Healthy infants immunized with conjugate vaccines also generate a predominant IgG(sub 1)-subclass antibody response but have a somewhat greater contribution of the IgG(sub 2) isotype to the antibody response than observed here (Ref. 26). The detectable, although low, level of IgG(sub 2) antibody induced by conjugate vaccine in these patients demonstrates that the IgG(sub 2) heavy-chain constant-region gene can be expressed in the antibody response, which makes unlikely a structural defect at the level of the immunoglobulin gene. In addition, the antibody response induced by conjugate vaccine was lower than that observed in healthy older children (Ref...

...finding is unknown, but the lower response in our patients was not accompanied by less antibody diversity than in healthy adults or children with conjugate-induced antibody (Ref. 13,27...

...The finding of IgG sub 1)- and IgG sub 2)-subclass predominance of antibody after immunization with conjugated (Ref. 26) and unconjugated (Ref. 3,26) forms of the saccharide...

...of the saccharide may activate different cellular interactions. Conjugate vaccines have the ability to induce antibody in healthy infants at an age at which there is a lack of response to...

...5,27-29). Reimmunization of the healthy infant with a conjugate vaccine increases the total antibody titer as well as the IgG titer, with restimulation of B-cell clones that were activated by primary immunization and minimal recruitment of new clones into the expressed-antibody repertoire, (Ref. 27) as was observed in Patient 1. In addition, conjugate vaccines can prime...

...to respond to immunization with unconjugated capsular polysaccharide, which is associated with reactivation of all IgG antibody-secreting clones expressed after conjugate immunization (Ref. 27,28). These observations in healthy children suggest...

...dependent form of the capsular polysaccharide (Ref. 27). The capsular-polysaccharide-induced increase in the antibody titer of normal infants is accompanied by a preferential IgG sub 2)-subclass antibody response, (Ref. 26) which indicates that the IgG-subclass response of the conjugate-induced memory B cell is dictated by the stimulating form...

...of response to subsequent capsular polysaccharide immunization in Patient 1, with a concomitant increase in antibody titer and IgG sub 2) antibody production, suggests either an intrinsic defect in the memory B cell generated by the conjugate...

...cooperate with this memory B cell to respond to isolated saccharides and to generate an IgG sub 2) antibody response. In vitro experiments will be required to delineate the exact cellular basis of this...

...Finally, the antibody titers to the capsular polysaccharide induced by the vaccine were much higher than those considered minimally protective, (Ref. 30) and the antibody induced was shown to have bactericidal activity in vitro. In spite of its decline, the...

...Karen Cerosaletti for technical assistance, to Dr. Charles Reimer (Centers for Disease Control) for the monoclonal antibodies to IgG subclasses, and to Dr. Jose Munoz for critical suggestions.

#### CITED REFERENCES

1. Yount W, Dorner MM, Kunkel HG, Kabat EA. Studies on human antibodies. VI. Selective variation in subgroup composition and genetic markers. J Exp Med 1968; 127:633...
- ...A streptococci: restriction in class, subclass, and type, with clonal appearance of polysaccharide-group-specific antibodies. Scand J Immunol 1976; 5:383-90.
3. Johnston RB Jr, Anderson P, Rosen S, Smith DH. Characterization of human antibody to polyribophosphate, the capsular antigen of Hemophilus influenzae type b. Clin Immunol Immunopathol 1973; 1...
- ...RA, Anderson PW. Hemophilus influenzae type b: assays for the capsular



polysaccharide and for anti polysaccharide antibody. In: Rose NR, Friedman H, Fahey JL, eds. Manual of clinical laboratory immunology. 3rd ed...

... 84.

9. Reimer CB, Phillips DJ, Aloisio CH, et al. Evaluation of thirty-one mouse monoclonal antibodies to human IgG epitopes. *Hybridoma* 1984; 3: 263-75.
10. Gliotti F, Smith L, Insel RA. Reproducible production of protective human monoclonal antibodies by fusion of peripheral blood lymphocytes with a mouse myeloma cell line. *J Infect Dis* 1984; 149: 43-7.
11. Insel RA. In vivo production of human hybridoma antibody to the *Haemophilus influenzae* b capsule in athymic nude mice. *J Infect Dis* 1984; 150...

... 12. Seppala IJT, Rautonen N, Sarnesto A, Mattila PA, Makela O. The percentages of six immunoglobulin isotypes in human antibodies to tetanus toxoid: standardization of isotype-specific second antibodies in solid-phase assay. *Eur J Immunol* 1984; 14: 868-75.

13. Insel RA, Kittelberger A, Anderson P. Isoelectric focusing of human antibody to the *Haemophilus influenzae* b capsular polysaccharide: restricted and identical spectrotypes in adults. *J Immunol*...

... 51: 31-8.

15. Okeilus VA. Chronic infections in a family with hereditary deficiency of IgG(sub 2) and IgG(sub 4). *Clin Exp Immunol* 1974; 17: 19-27.
16. Hammarstrom L, Smith CIE. IgG(sub 2) deficiency in a healthy blood donor: concomitant lack of IgG(sub 2), IgA and IgE immunoglobulins and specific anti-carbohydrate antibodies. *Clin Exp Immunol* 1983; 51: 600-4.
17. Hammarstrom L, Granstrom M, Okeilus B, Persson MAA, Smith CIE. IgG subclass distribution of antibodies against *S. aureus* teichoic acid and alpha-toxin in normal and immunodeficient donors. *Clin Exp Immunol* 1984; 55: 593...

... Uretsu DT, Ambrosino DM, Quinti I, Siber GR, Geha RS. Recurrent sinopulmonary infection and impaired antibody response to bacterial capsular polysaccharide antigen in children with selective IgG-subclass deficiency. *N Engl J Med* 1985; 313: 1247-51.

19. Okeilus V-A, Laurell A-B, Lindquist B, et al. IgG subclasses in selective IgA deficiency: importance of IgG(sub 2)-IgA deficiency. *N Engl J Med* 1981; 304: 1476-7.
20. Okeilus V...

... Mgone N, Qiviero S, de Lange G, et al. Multiple gene deletions within the human immunoglobulin heavy-chain cluster. *Proc Natl Acad Sci USA* 1984; 81: 5811-5.

22. Cebral JJ...

... 125: 1066-70.

24. Freijd A, Hammarstrom L, Persson MAA, Smith CIE. Plasma anti-pneumococcal antibody activity of the IgG class and subclasses in otitis prone children. *Clin Exp Immunol* 1984; 56: 233-8.
25. Barrett DJ, Ayoub EM. IgG2 subclass restriction of antibody to pneumococcal polysaccharides. *Clin Exp Immunol* 1986; 63: 127-34.
26. Insel RA. B cell development pathway for human antibody responses to polysaccharides. *Pediatr Res* 1986; 20: 295A, abstract.
27. Insel RA, Anderson PW. Oligosaccharide-protein conjugate vaccines induce and prime for oligoclonal IgG antibody responses to the *Haemophilus influenzae* b capsular polysaccharide in human infants.

- J. Exp. Med. 1986; ...  
 ... J. Pediatr. 1985; 107:346-51.  
 29. Eskola J, Kayhty H, Peltola H, et al. Antibody levels achieved in infants by course of Haemophilus influenzae type b polysaccharide/diphtheria toxoid conjugate vaccine. Lancet 1985; 1:1184-6.  
 30. Anderson P. The protective level of serum antibodies to the capsular polysaccharide of Haemophilus influenzae type b. J Infect Dis 1984; 149:1034.  
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Set	Items	Description
S1	99	E26- E31
S2	88	RD (unique items)
S3	0	S2 AND ?TECHOI C?
S4	99	E3- E8
S5	0	S4 AND (LI POTECHOI C OR TECHOI C)
S6	8	S4 AND (LI POTEI CHOI C OR TEI CHOI C)
S7	6	RD (unique items)
S8	184	E3- E12
S9	3	S8 AND (LI POTEI CHOI C OR TEI CHOI C)
S10	2	RD (unique items)
S11	38	E3- E9
S12	6	S11 AND (LI POTEI CHOI C OR TEI CHOI C)
S13	4	RD (unique items)
S14	54	E1- E12
S15	5	S14 AND (LI POTEI CHOI C OR TEI CHOI C)
S16	4	RD (unique items)
S17	7526	(MONO? OR ANTI BOD? OR IMMUNOGLOBULIN) AND (LI POTEI CHOI C OR TEI CHOI C)
S18	622	S17 AND IGG
S19	61	S18 AND MONOCLONAL
S20	33	RD (unique items)